

# **Safety Data Sheets – Table of Contents**

## **Henkel**

p. 320 Loctite 55 Pipe Sealing Cord

## **Hilti**

p.326 Window and Door Pro 812

## **Ideal**

p.334 Yellow 77 Plus

p.344 Yellow 77 Pro

p.354 Yellow 77

## **Irwin**

p.364 Strait-Line Red Marking Chalk

p.370 Strait-Line Yellow Marking Chalk

## **Keson**

p.376 Red Marking Chalk

## **Klean Strip**

p.384 Paint Thinner

## **Milwaukee Tools**

p.391 Lithium – Ion Batteries



Revision Number: 003.1

Issue date: 11/17/2016

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name:</b>	<b>Loctite(R) 55 Pipe Sealing Cord</b>	<b>IDH number:</b>	342134
<b>Product type:</b>	Sealant	<b>Item number:</b>	35082
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Corporation	Telephone: (860) 571-5100		
One Henkel Way	MEDICAL EMERGENCY Phone: Poison Control Center		
Rocky Hill, Connecticut 06067	1-877-671-4608 (toll free) or 1-303-592-1711		
	TRANSPORT EMERGENCY Phone: CHEMTREC		
	1-800-424-9300 (toll free) or 1-703-527-3887		
	Internet: www.henkelna.com		

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**WARNING:** CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
EYE IRRITATION	2A

### PICTOGRAM(S)



### Precautionary Statements

<b>Prevention:</b>	Wash affected area thoroughly after handling. Wear eye and face protection.
<b>Response:</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
<b>Storage:</b>	Not prescribed
<b>Disposal:</b>	Not prescribed

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Limestone	1317-65-3	40 - 50
Talc	14807-96-6	1 - 5
Ethene, tetrafluoro-, homopolymer	9002-84-0	0.1 - 1
Quartz (SiO <sub>2</sub> )	14808-60-7	0.1 - 1

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Symptoms:</b>	See Section 11.

#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
<b>Unusual fire or explosion hazards:</b>	Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of silicon. Carbonyl fluoride. Hydrogen fluoride. Formaldehyde. Irritating organic vapours.

#### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Refer to Section 8.
<b>Storage:</b>	For safe storage, store between 5 °C (41°F) and 30 °C (86°F) Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Limestone	10 mg/m3 TWA Total dust.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
Talc	2 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.3 mg/m3 TWA Total dust.	None	50 ppm
Ethene, tetrafluoro-, homopolymer	None	None	None	10 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction.
Quartz (SiO <sub>2</sub> )	0.025 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.05 mg/m3 PEL	None	None

### Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

### Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

### Eye/face protection:

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

### Skin protection:

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. The use of polyvinyl chloride gloves is recommended. Nitrile gloves. Neoprene gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Paste
<b>Color:</b>	Opaque, Off white
<b>Odor:</b>	Slight, Acrylic
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not available.
<b>Vapor pressure:</b>	< 0 mm hg (20 °C (68°F))
<b>Boiling point/range:</b>	150 °C (302°F)
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.25
<b>Vapor density:</b>	< 1 (Air = 1)
<b>Flash point:</b>	> 93 °C (> 199.4 °F) Closed cup
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not available.
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Partially soluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	1 %; 12.75 g/l
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.



## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Irritating organic vapours.
<b>Incompatible materials:</b>	Oxidizing agents. Fluorine. Ammonium salts. Heat, sunlight, UV light, contamination or an oxygen free atmosphere.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

**Relevant routes of exposure:** Skin, Inhalation, Eyes, Ingestion

### Potential Health Effects/Symptoms

<b>Inhalation:</b>	Inhalation of vapors or mists of the product may be irritating to the respiratory system. When heated to temperatures exceeding 300° F (150° C) in the presence of air, silicones may form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Vapors irritate the eyes, nose and throat. Safe handling conditions may be maintained by keeping formaldehyde vapor concentrations below the OSHA permissible limit.
<b>Skin contact:</b>	May cause skin irritation.
<b>Eye contact:</b>	Causes serious eye irritation.
<b>Ingestion:</b>	May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Limestone	None	Nuisance dust
Talc	None	Irritant, Lung, Some evidence of carcinogenicity
Ethene, tetrafluoro-, homopolymer	None	No Target Organs
Quartz (SiO <sub>2</sub> )	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Limestone	No	No	No
Talc	No	Group 2B	No
Ethene, tetrafluoro-, homopolymer	No	No	No
Quartz (SiO <sub>2</sub> )	Known To Be Human Carcinogen.	Group 1	No

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Follow all local, state, federal and provincial regulations for disposal.

**Hazardous waste number:** Not a RCRA hazardous waste.

### 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

#### U.S. Department of Transportation Ground (49 CFR)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

#### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

#### Water Transportation (IMO/IMDG)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### 15. REGULATORY INFORMATION

#### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.  
**TSCA 12 (b) Export Notification:** None above reporting de minimis  
**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA Section 313:** None above reporting de minimis.  
**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer.

#### Canada Regulatory Information

**CEPA DSL/NDL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

### 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: Reviewed SDS. Reissued with new date.

**Prepared by:** Sheila Gines, Regulatory Affairs Specialist

**Issue date:** 11/17/2016

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

## 1 Identification

- **Product identifier**
- **Trade name:** CF-AS CJP; CF ISO 765; CF ISO 500+; CF-I ECO +; CS-F JS; CF 812 CC; CF-F ECO; CF-I 50 ECO GV; CF 125-50; CF 125-5W50; CF 126-N; CF 126; CF ISO 750; CF-I 750 B2 (-SV); CF 116-45; CF F 600; CF 116; CF-JI; CF 812; CF 812 WD; CF-I 65 ECO
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** Building and construction work
- **Application of the substance / the mixture**  
Assembly foam  
Construction chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Hilti, Inc.  
5400 South 122nd East Ave.  
US-Tulsa, OK 74146  
Phone: (800) 879-8000  
Fax: (800) 879-7000  
Español: (800) 879-5000
- **Information department:**  
see section 16  
chemicals.hse@hilti.com
- **Emergency telephone number:**  
Chem-Trec  
Tel.: 1 800 424 9300  
Tox Info Suisse - 24 h Service  
Tel.: 0041 / 44 251 51 51 (international)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.  
Acute Tox. 4 H332 Harmful if inhaled.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Carc. 2 H351 Suspected of causing cancer.  
STOT SE 3 H335 May cause respiratory irritation.  
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Xn; Harmful  
R20-40-48/20: Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
Xn; Sensitising  
R42/43: May cause sensitization by inhalation and skin contact.  
Xi; Irritant  
R36/37/38: Irritating to eyes, respiratory system and skin.  
F+; Extremely flammable  
R12: Extremely flammable.
- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
Warning! Pressurized container.


- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



- **Signal word** Danger
- **Hazard-determining components of labeling:**  
4,4'-diphenylmethanediisocyanate, isomers and homologues
- **Hazard statements**  
H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.  
H332 Harmful if inhaled.  
H315 Causes skin irritation.

(Contd. on page 2)

(Contd. of page 1)

- H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin reaction.  
H351 Suspected of causing cancer.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.
- **Precautionary statements**  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P251 Pressurized container: Do not pierce or burn, even after use.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 If on skin: Wash with plenty of water.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- **Classification system**  
· **NFPA ratings (scale 0-4)**
- 

Health = 1  
Fire = 4  
Reactivity = 1
- **Other hazards**  
· **Results of PBT and vPvB assessment**  
· **PBT:** Not applicable.  
· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture consisting of the following components.

### · **Dangerous components:**

9016-87-9	4,4'-diphenylmethanediisocyanate, isomeres and homologues	Xn R20-40-48/20; Xn R42/43; Xi R36/37/38	>25%
13674-84-5	Tris(1-chloro-2-propyl)phosphate	Xn R22 R52/53	10-25%
75-28-5	isobutane	F+ R12	5-15%
106-97-8	butane, pure	F+ R12	5-15%
115-10-6	dimethyl ether	F+ R12	5-15%
74-98-6	propane liquefied	F+ R12	5-15%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

## 4 First-aid measures

- **Description of first aid measures**
- **General information**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; immediately call for medical help.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** Allergic reactions
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
Can form explosive gas-air mixtures.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Mount respiratory protective device.

(Contd. on page 3)

US

· **Additional information** Cool endangered receptacles with water spray.

(Contd. of page 2)

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Ensure adequate ventilation  
Keep away from ignition sources
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Allow to solidify. Pick up mechanically.  
Dispose contaminated material as waste according to item 13.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling**
- **Precautions for safe handling**  
Keep receptacles tightly sealed.  
Store in cool, dry place in tightly closed receptacles.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
Don't spray on a naked flames or any incandescent material  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Contents under pressure. Do not store in direct sunlight. Do not store above 100°F. Do not open or burn even after use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location.  
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Store receptacle in a well ventilated area.  
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
- **Storage class 2 B**
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

<b>75-28-5 isobutane</b>	
TLV	Short-term value: 2370 mg/m <sup>3</sup> , 1000 ppm
<b>106-97-8 butane, pure</b>	
REL	Long-term value: 1900 mg/m <sup>3</sup> , 800 ppm
TLV	Short-term value: 2370 mg/m <sup>3</sup> , 1000 ppm
<b>115-10-6 dimethyl ether</b>	
WEEL	Long-term value: 1000 ppm
<b>74-98-6 propane liquefied</b>	
PEL	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
TLV	refer to Appendix F: minimal oxygen content

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Do not eat, drink, smoke or sniff while working.  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Immediately remove all soiled and contaminated clothing  
Do not inhale gases / fumes / aerosols.

(Contd. on page 4)

US

(Contd. of page 3)

- **Breathing equipment:**  
Not necessary if room is well-ventilated.  
Use suitable respiratory protective device in case of insufficient ventilation.

- **Recommended filter device for short term use:**

Filter AX  
EN 371

- **Protection of hands:**



Protective gloves.

EN 374

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves** Nitrile rubber, NBR
- **Penetration time of glove material** Value for the permeation: Level  $\leq 60$
- **Eye protection:**



Tightly sealed goggles.

EN 166 + EN 170

- **Body protection:**



Protective work clothing.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:** Aerosol
- **Color:** Different according to coloring
- **Odor:** Characteristic
- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:**  $<35^{\circ}\text{C}$  ( $<95^{\circ}\text{F}$ )

- **Flash point:**  $<0^{\circ}\text{C}$  ( $<32^{\circ}\text{F}$ ) (DIN 53213)

- **Flammability (solid, gaseous)** Not applicable.

- **Ignition temperature:**  $235^{\circ}\text{C}$  ( $455^{\circ}\text{F}$ )

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

- **Lower:** 1.5 Vol %
- **Upper:** 11 Vol %

- **Vapor pressure:** Not determined

- **Density:** Not determined
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

- **Water:** Not miscible or difficult to mix

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

- **dynamic:** Not determined.
- **kinematic:** Not determined.

(Contd. on page 5)

US

(Contd. of page 4)

## Other information

CF 116 - VOC Content: 2.1 g/l (EPA Method 24)  
CF 812 - VOC Content: 2.4 g/l (EPA Method 24)  
CF-AS CJP - VOC Content: 0.012 g/l (EPA Method 24)

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**  
Reacts with alcohols, amines, aqueous acids and alkalis  
Danger of bursting
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

#### LD/LC50 values that are relevant for classification:

##### 9016-87-9 4,4'-diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	>5000 mg/kg (rat)
Inhalative	LC50/4h	0.49 mg/l (rat)

##### 13674-84-5 Tris(1-chloro-2-propyl)phosphate

Oral	LD50	1150 - 1750 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4h	>5 mg/l (rat)

##### 74-98-6 propane liquefied

Inhalative	LC50/4h	513 mg/l (rat)
------------	---------	----------------

##### 115-10-6 dimethyl ether

Inhalative	LC50/4h	308 mg/l (rat)
------------	---------	----------------

##### 75-28-5 isobutane

Inhalative	LC50/4h	>50 mg/l (rat)
------------	---------	----------------

##### 106-97-8 butane, pure

Inhalative	LC50/4h	658 mg/l (rat)
------------	---------	----------------

#### Primary irritant effect:

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

#### Sensitization:

- Sensitization possible through inhalation.
- Sensitization possible through skin contact.

#### Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful  
Irritant

#### IARC (International Agency for Research on Cancer)

9016-87-9	4,4'-diphenylmethanediisocyanate, isomeres and homologues	3
-----------	---	---

#### NTP (National Toxicology Program)

None of the ingredients is listed

#### OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

## 12 Ecological information

### Toxicity

#### Aquatic toxicity:

##### 13674-84-5 Tris(1-chloro-2-propyl)phosphate

EC50/48h	65 - 335 mg/l (magna daphnia)
EC50/72h	45 mg/l (Algae)
EC50/96h	56.2 mg/l (fish)

##### 9016-87-9 4,4'-diphenylmethanediisocyanate, isomeres and homologues

EC50/96h	>1000 mg/l (fish)
----------	-------------------

##### 115-10-6 dimethyl ether

EC50/96h	>1000 mg/l (fish)
----------	-------------------

(Contd. on page 6)

US



(Contd. of page 5)

## 74-98-6 propane liquefied

EC50/96h &gt;1000 mg/l (fish)

- **Persistence and degradability** Based on previous experience, this product is inert and non-degradable.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** Does not accumulate in organisms
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
After curing, the product can be disposed of with household waste.  
Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations.

### European waste catalogue:

08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27*	paint, inks, adhesives and resins containing dangerous substances

- **Uncleaned packagings:**
- **Recommendation:**  
Dispose of packaging according to regulations on the disposal of packagings.  
Disposal must be made according to official regulations.

## 14 Transport information

· UN-Number	UN1950
· DOT, ADR, IMDG, IATA	
· UN proper shipping name	
· DOT	Aerosols, flammable
· ADR	1950 Aerosols
· IMDG	AEROSOLS
· IATA	AEROSOLS, flammable

### Transport hazard class(es)

#### DOT



· Class	2.1
· Label	2.1

#### ADR



· Class	2 5F Gases
· Label	2.1

#### IMDG, IATA



· Class	2.1
· Label	2.1

· Packing group	
· DOT, ADR, IMDG, IATA	Void

· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special marking (ADR):</b>	None
· <b>Special marking (IATA):</b>	None

(Contd. on page 7)

US

(Contd. of page 6)

· Special precautions for user	Warning: Gases
· Danger code (Kemler):	Void
· EMS Number:	F-D,S-U
· Segregation groups	None
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· IATA	
· Remarks:	Packing Instruction No. 203
· UN "Model Regulation":	UN1950, Aerosols, 2.1

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

### · Section 355 (Extremely hazardous substances):

None of the ingredients is listed.

### · Section 313 (Specific toxic chemical listings):

9016-87-9 | 4,4'-diphenylmethanediisocyanate, isomeres and homologues

### · TSCA (Toxic Substances Control Act):

All ingredients are listed.

### · Proposition 65:

#### · Chemicals known to cause cancer:

None of the ingredients are listed.

### · Cancerogenity categories

#### · EPA (Environmental Protection Agency)

9016-87-9 | 4,4'-diphenylmethanediisocyanate, isomeres and homologues

CBD

#### · TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

#### · MAK (German Maximum Workplace Concentration)

9016-87-9 | 4,4'-diphenylmethanediisocyanate, isomeres and homologues

4

#### · NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- Chemical safety assessment: not required.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### · Relevant phrases

- R12 Extremely flammable.
- R20 Harmful by inhalation.
- R22 Harmful if swallowed.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R40 Limited evidence of a carcinogenic effect.
- R42/43 May cause sensitization by inhalation and skin contact.
- R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

### · Department issuing SDS:

Hilti Corporation  
Business Unit Chemicals  
Quality/Safety/Environment  
FL-9494 Schaan / Liechtenstein

chemicals.hse@hilti.com

Tel.: +423 234 3004

FAX.: +423 234 3462

### · Date of preparation / last revision 05/19/2015 / 4

### · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

(Contd. on page 8)

US



(Contd. of page 7)

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A  
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1  
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
Carc. 2: Carcinogenicity, Hazard Category 2  
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

· \* **Data compared to the previous version altered.**

—US—



Revision date: Initial version  
Date of issue: 05.13.2015

Page: 1/10

<b>Trade name:</b>	<b>YELLOW 77<sup>®</sup> PLUS Wire Pulling Lubricant</b>
--------------------	--

#### **SECTION 1: Identification**

**Product identifier:** YELLOW 77<sup>®</sup> PLUS Wire Pulling Lubricant.  
**Synonyms:** None available.  
**Product Code Number:** 31-398, 31-391, 31-395.  
**SDS number:** ID021  
**Recommended use:** Wire Pulling Lubricant.  
**Recommended restrictions:** None known.

**Manufacturer/Importer/Supplier/Distributor information:**

**Company Name:** IDEAL INDUSTRIES, INC.  
**Company Address:** Becker Place,  
Sycamore, IL 60178  
**Company Telephone:** Office hours (Mon – Fri)  
7AM - 5 PM (CDT)  
(815)895-5181  
**Company Contact Name:** Darryl Docter.  
**Company Contact Email:** IDEAL@IDEALINDUSTRIES.COM  
**Emergency phone number:** 24 HOUR EMERGENCY NUMBER:  
(815)895-5181.

#### **SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

***Physical hazards***

Not classified as a physical hazard under GHS criteria.

***Health hazards***

Not classified as a health hazard under GHS criteria

***Environmental hazards***

Not classified as an environmental hazard under GHS criteria.

**GHS Signal word:** Not applicable.

**GHS Hazard statement(s):** Not applicable.

**GHS Hazard symbol(s):** Not applicable

**GHS Precautionary statement(s):**

**Prevention:**

No prevention precautionary statements required.

**Response:**

No response precautionary statements required

**Storage:**

No storage precautionary statements required.

**Disposal:**

No disposal precautionary statements required.

**Hazard(s) not otherwise**

**Classified (HNOC):** None known.

**Percentage of ingredient(s) of unknown acute toxicity:**

Not applicable

**SECTION 3: Composition/information on ingredients**

**Mixture:**

Chemical name	CAS#	Concentration (weight %)
None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R 1910.1200		

**SECTION 4: First-aid Measures**

**Description of necessary measures:**

**Inhalation:** Move to fresh air. Get medical attention if symptoms develop.

**Skin contact:** Wash off with warm water and soap for 15 minutes. Get medical attention if irritation develops or persists.

**Eye contact:** Flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Ingestion:** Administer water or milk. Consult physician or local poison control center.

**Most important symptoms/effects, acute and delayed:** None normally expected. Upon prolonged contact, may cause temporary eye discomfort. If material is used in extreme heat (>120° F), prolonged and repeated exposure could pose a risk of pulmonary disease.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet.

#### **SECTION 5: Fire-fighting measures**

**Suitable extinguishing media:** Not flammable by OSHA criteria. Use extinguishing media suitable for surrounding materials.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** None expected.  
Combustion products - Excessive heat and burning may release oxides of carbon and nitrogen.

**Special protective equipment and precautions for fire-fighters:** Containers should be cooled with water to prevent vapor pressure build up. Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do so without risk. For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

#### **SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

**Methods and material for containment and cleaning up:**

Wipe up, shovel or vacuum spilled material. Clean up spills immediately as they can be dangerously slippery.

#### **SECTION 7: Handling and Storage**

**Precautions for safe handling:** Keep away from children, infants and pets. Avoid contact with skin. Avoid contact with eyes. Wear personal protective equipment. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

**Conditions for safe storage, including any incompatibles:**

Store at temperatures between 40 - 120° F. Avoid freezing.

## SECTION 8: Exposure controls/personal protection

### Control Parameters:

### Occupational exposure limits:

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
Not applicable		

US ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
Not applicable		

USA. Workplace Environmental Exposure Levels (WEEL)		
Substance	TWA	STEL
Not applicable		

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Special local ventilation is recommended to keep mists below exposure limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Individual protection measures, such as personal protective equipment:

**Eye/face protection:** The use of safety glasses or splash goggles are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).

**Skin and Hand protection:** None normally required. If worn, use neoprene. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Respiratory protection:** No personal respiratory protective equipment normally required.

**Other:** Eye fountain in work area is recommended.

**Thermal hazards:** No data available.

## SECTION 9: Physical and chemical properties

### Appearance

<b>Physical state:</b>	Paste
<b>Form:</b>	Yellow creamy paste.
<b>Color:</b>	Light yellow.
<b>Odor:</b>	Slight odor.
<b>Odor threshold:</b>	No data available
<b>pH:</b>	6.5-8.0.
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	212°F 100°C
<b>Flash point:</b>	None
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	The product is not flammable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%):</b>	Not applicable
<b>Flammability limit – upper (%):</b>	Not applicable
<b>Explosive limit – lower (%):</b>	Not applicable
<b>Explosive limit – upper (%):</b>	Not applicable
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative Density:</b>	0.93
<b>Solubility(ies):</b>	Moderate
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	81000 cps @ 1 rpm 158°F 87500 cps @ 1 rpm 77°F
<b>Other information:</b>	
<b>Percent volatile by volume (%):</b>	< 90%
<b>Percent solid by weight:</b>	~15%

## SECTION 10: Stability and Reactivity

<b>Reactivity:</b>	Not chemically reactive.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated conditions of use.
<b>Possibility of hazardous reactions:</b>	Hazardous reactions not anticipated.
<b>Conditions to avoid:</b>	Avoid prolonged storage at temperatures above 120F.
<b>Incompatible materials:</b>	Avoid strong oxidizers.
<b>Hazardous decomposition Products:</b>	Excessive heat and burning may release oxides of carbon and nitrogen.



## SECTION 11: Toxicological information

### Information on likely routes of exposure:

<b>Inhalation:</b>	Not an expected route of entry.
<b>Ingestion:</b>	Not an expected route of entry.
<b>Skin:</b>	Skin contact is a primary route of entry.
<b>Eyes:</b>	Not an expected route of entry.

### Symptoms related to the physical, chemical, and toxicological characteristics:

None normally expected. If material is used in extreme heat (>120° F), prolonged and repeated exposure could pose a risk of pulmonary disease.

### Delayed and immediate effects and chronic effects from short or long-term exposure:

Upon prolonged contact, may cause temporary eye discomfort.

### Numerical measures of toxicity:

#### Ingredient Information:

Substance	Test Type (species)	Value
Not applicable	LD <sub>50</sub> Oral (Rat)	
	LD <sub>50</sub> Dermal (Rabbit)	
	LC <sub>50</sub> Inhalation (Rat)	

### Product Acute Toxicity Estimates:

Acute Oral Toxicity – no data available  
Acute Dermal Toxicity - no data available  
Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:** No information available on the mixture, however none of the components have been classified as skin corrosive/irritant (or are below the concentration threshold for classification).

**Serious eye damage/eye irritation:** No information available on the mixture, however none of the components have been classified as causing eye damage/eye irritation (or are below the concentration threshold for classification).

**Respiratory sensitization:** No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).

**Skin sensitization:** No information available on the mixture, however none of the components have been classified as a skin

sensitizer (or are below the concentration threshold for classification).

**Germ cell mutagenicity:**

No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

**Carcinogenicity:**

No information available on the mixture, however none of the components are listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

**Reproductive toxicity:**

No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Single exposure:**

No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Repeat exposure:**

No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).

**Aspiration hazard:**

No information available on the mixture, however none of the components have been classified for Aspiration hazard (or are below the concentration threshold for classification).

**Further information:**

No data available.

**SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
Not applicable	LC <sub>50</sub>	Fish	
	LC <sub>50</sub>	Aquatic Invertebrates	
	EC <sub>50</sub>	Algae	

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other adverse effects:** No data available.

### SECTION 13: Disposal considerations

**Disposal instructions:**

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties.

### SECTION 14: Transport Information

**US Department of Transportation Classification (49CFR)**

This material is not classified as dangerous under DOT regulations.

**IMDG**

This material is not classified as dangerous under IMDG regulations.

**IATA (Country variations may apply)**

This material is not classified as dangerous under IATA regulations

**Environmental hazards**

Marine pollutant: No.

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)**

No further relevant information available.

**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.**

None.

## SECTION 15: Regulatory Information

**Safety, health and environmental regulations specific for the product.**

### USA:

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is not hazardous under OSHA.

**Toxic Substances Control Act (TSCA)** – All substances in this product are listed, as required or are exempt from the TSCA inventory.

### **SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### **CERCLA Hazardous Substance List, 40 CFR 302.4:**

None listed.

### **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

### **SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

### **Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** No

**Chronic Health Hazard:** No

**Fire Hazard:** No

**Pressure Hazard:** No

**Reactivity Hazard:** No

### **Section 313 Toxic Release Inventory (40 CFR 372):**

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: None

### **STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986:** No components are listed on Prop 65 as a carcinogen.

**Massachusetts Right to Know:** No components are listed on the Massachusetts Right to Know List.

**New Jersey Right to Know:** No components are listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** No components are listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** Not applicable.

**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: May 13, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.



Revision date: Initial version  
Date of issue: 05.12.2015

Page: 1/10

<b>Trade name:</b>	<b>YELLOW 77<sup>®</sup> PRO Wire Pulling Lubricant</b>
--------------------	---

#### **SECTION 1: Identification**

**Product identifier:** YELLOW 77<sup>®</sup> PRO Wire Pulling Lubricant.  
**Synonyms:** None available.  
**Product Code Number:** All "31" Series.  
**SDS number:** ID022  
**Recommended use:** Wire Pulling Lubricant.  
**Recommended restrictions:** None known.

**Manufacturer/Importer/Supplier/Distributor information:**

**Company Name:** IDEAL INDUSTRIES, INC.  
**Company Address:** Becker Place,  
Sycamore, IL 60178  
**Company Telephone:** Office hours (Mon – Fri)  
7AM - 5 PM (CDT)  
(815)895-5181  
**Company Contact Name:** Darryl Docter.  
**Company Contact Email:** IDEAL@IDEALINDUSTRIES.COM  
**Emergency phone number:** 24 HOUR EMERGENCY NUMBER:  
(815)895-5181.

#### **SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

***Physical hazards***

Not classified as a physical hazard under GHS criteria.

***Health hazards***

Not classified as a health hazard under GHS criteria

***Environmental hazards***

Not classified as an environmental hazard under GHS criteria.

**GHS Signal word:** Not applicable.

**GHS Hazard statement(s):** Not applicable.

**GHS Hazard symbol(s):** Not applicable

**GHS Precautionary statement(s):**

**Prevention:**

No prevention precautionary statements required.

**Response:**

No response precautionary statements required

**Storage:**

No storage precautionary statements required.

**Disposal:**

No disposal precautionary statements required.

**Hazard(s) not otherwise**

**Classified (HNOC):** None known.

**Percentage of ingredient(s) of unknown acute toxicity:**

Not applicable

**SECTION 3: Composition/information on ingredients**

**Mixture:** Water-Wax Emulsion

Chemical name	CAS#	Concentration (weight %)
None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R 1910.1200		

**SECTION 4: First-aid Measures**

**Description of necessary measures:**

**Inhalation:** Move to fresh air. Get medical attention if symptoms develop.

**Skin contact:** Wash off with warm water and soap for 15 minutes. Get medical attention if irritation develops or persists.

**Eye contact:** Flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Ingestion:** Induce vomiting. Consult physician or local poison control center.

**Most important symptoms/effects, acute and delayed:** None normally expected. Upon prolonged contact, may cause temporary eye discomfort. If material is used in extreme heat (>120° F), prolonged and repeated exposure could pose a risk of pulmonary disease.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet.

### SECTION 5: Fire-fighting measures

**Suitable extinguishing media:** Not flammable by OSHA criteria. Use extinguishing media suitable for surrounding materials.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** None expected.

Combustion products - Excessive heat and burning may release oxides of carbon and nitrogen.

**Special protective equipment and precautions for fire-fighters:** Containers should be cooled with water to prevent vapor pressure build up. Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do so without risk. For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

### SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

**Methods and material for containment and cleaning up:**

Wipe up, shovel or vacuum spilled material. Clean up spills immediately as they can be dangerously slippery.

### SECTION 7: Handling and Storage

**Precautions for safe handling:** Keep away from children, infants and pets. Avoid contact with skin. Avoid contact with eyes. Wear personal protective equipment. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

**Conditions for safe storage, including any incompatibles:**

Store at temperatures between 40 - 120° F. Avoid freezing.

### SECTION 8: Exposure controls/personal protection

**Control Parameters:**

**Occupational exposure limits:**



US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEEL (15 min)
Not applicable		

US ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEEL (15 min)
Not applicable		

USA. Workplace Environmental Exposure Levels (WEEL)		
Substance	TWA	STEEL
Not applicable		

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Special local ventilation is recommended to keep mists below exposure limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** The use of safety glasses or splash goggles are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).

**Skin and Hand protection:** None normally required. If worn, use neoprene. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Respiratory protection:** No personal respiratory protective equipment normally required.

**Other:** Eye fountain in work area is recommended.

**Thermal hazards:** No data available.

## SECTION 9: Physical and chemical properties

**Appearance**

**Physical state:**

Paste

**Form:**

Yellow paste.

**Color:**

Yellow.

**Odor:**

Slight odor.

**Odor threshold:**

No data available

<b>pH:</b>	7.0-8.5.
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	212°F 100°C
<b>Flash point:</b>	None
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	The product is not flammable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%):</b>	Not applicable
<b>Flammability limit – upper (%):</b>	Not applicable
<b>Explosive limit – lower (%):</b>	Not applicable
<b>Explosive limit – upper (%):</b>	Not applicable
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative Density:</b>	0.98
<b>Solubility(ies):</b>	Moderate
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	81000 cps @ 1 rpm 158°F 87500 cps @ 1 rpm 77°F
<b>Other information:</b>	
<b>Percent volatile by volume (%):</b>	< 90%
<b>Percent solid by weight:</b>	~20%

## SECTION 10: Stability and Reactivity

<b>Reactivity:</b>	Not chemically reactive.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated conditions of use.
<b>Possibility of hazardous reactions:</b>	Hazardous reactions not anticipated.
<b>Conditions to avoid:</b>	None expected.
<b>Incompatible materials:</b>	Avoid strong oxidizers.
<b>Hazardous decomposition Products:</b>	Excessive heat and burning may release oxides of carbon and nitrogen.

## SECTION 11: Toxicological information

### Information on likely routes of exposure:

<b>Inhalation:</b>	Not an expected route of entry.
<b>Ingestion:</b>	Not an expected route of entry.
<b>Skin:</b>	Skin contact is a primary route of entry.
<b>Eyes:</b>	Not an expected route of entry.

### Symptoms related to the physical, chemical, and toxicological characteristics:

None normally expected. If material is used in extreme heat (>120° F), prolonged and repeated exposure could pose a risk of pulmonary disease.

**Delayed and immediate effects and chronic effects from short or long-term exposure:**

Upon prolonged contact, may cause temporary eye discomfort.

**Numerical measures of toxicity:**

**Ingredient Information:**

Substance	Test Type (species)	Value
Not applicable	LD <sub>50</sub> Oral (Rat)	
	LD <sub>50</sub> Dermal (Rabbit)	
	LC <sub>50</sub> Inhalation (Rat)	

**Product Acute Toxicity Estimates:**

Acute Oral Toxicity – no data available

Acute Dermal Toxicity - no data available

Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:**

No information available on the mixture, however none of the components have been classified as skin corrosive/irritant (or are below the concentration threshold for classification).

**Serious eye damage/eye irritation:**

No information available on the mixture, however none of the components have been classified as causing eye damage/eye irritation (or are below the concentration threshold for classification).

**Respiratory sensitization:**

No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).

**Skin sensitization:**

No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).

**Germ cell mutagenicity:**

No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

**Carcinogenicity:**

No information available on the mixture, however none of the components are listed in the National

Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

**Reproductive toxicity:**

No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Single exposure:**

No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Repeat exposure:**

No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).

**Aspiration hazard:**

No information available on the mixture, however none of the components have been classified for Aspiration hazard (or are below the concentration threshold for classification).

**Further information:**

No data available.

**SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
Not applicable	LC <sub>50</sub>	Fish	
	LC <sub>50</sub>	Aquatic Invertebrates	
	EC <sub>50</sub>	Algae	

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other adverse effects:** No data available.

### SECTION 13: Disposal considerations

**Disposal instructions:**

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties.

### SECTION 14: Transport Information

**US Department of Transportation Classification (49CFR)**

This material is not classified as dangerous under DOT regulations.

**IMDG**

This material is not classified as dangerous under IMDG regulations.

**IATA (Country variations may apply)**

This material is not classified as dangerous under IATA regulations

**Environmental hazards**

Marine pollutant: No.

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)**

No further relevant information available.

**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.**

None.

### SECTION 15: Regulatory Information

**Safety, health and environmental regulations specific for the product.**

**USA:**

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is not hazardous under OSHA.

**Toxic Substances Control Act (TSCA)** – All substances in this product are exempt from the TSCA inventory.

**SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311, 312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substance List, 40 CFR 302.4:**

None listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

**SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

**Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** No

**Chronic Health Hazard:** No

**Fire Hazard:** No

**Pressure Hazard:** No

**Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):**

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: None

**STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986):** No components are listed on Prop 65 as a carcinogen.

**Massachusetts Right to Know:** No components are listed on the Massachusetts Right to Know List.

**New Jersey Right to Know:** No components are listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** No components are listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** Not applicable.

**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: May 12, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.



Revision date: Initial version  
Date of issue: 05.12.2015

Page: 1/10

<b>Trade name:</b>	<b>YELLOW 77<sup>®</sup> Wire Pulling Lubricant</b>
--------------------	---

#### **SECTION 1: Identification**

**Product identifier:** YELLOW 77<sup>®</sup> Wire Pulling Lubricant.  
**Synonyms:** None available.  
**Product Code Number:** 31-358, 31-351, 31-355, 31-365.  
**SDS number:** ID023  
**Recommended use:** Wire Pulling Lubricant.  
**Recommended restrictions:** None known.

**Manufacturer/Importer/Supplier/Distributor information:**

**Company Name:** IDEAL INDUSTRIES, INC.  
**Company Address:** Becker Place,  
Sycamore, IL 60178  
**Company Telephone:** Office hours (Mon – Fri)  
7AM - 5 PM (CDT)  
(815)895-5181  
**Company Contact Name:** Darryl Docter.  
**Company Contact Email:** IDEAL@IDEALINDUSTRIES.COM  
**Emergency phone number:** 24 HOUR EMERGENCY NUMBER:  
(815)895-5181.

#### **SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

***Physical hazards***

Not classified as a physical hazard under GHS criteria.

***Health hazards***

Not classified as a health hazard under GHS criteria

***Environmental hazards***

Not classified as an environmental hazard under GHS criteria.

**GHS Signal word:** Not applicable.

**GHS Hazard statement(s):** Not applicable.

**GHS Hazard symbol(s):** Not applicable

**GHS Precautionary statement(s):**



**Prevention:**

No prevention precautionary statements required.

**Response:**

No response precautionary statements required

**Storage:**

No storage precautionary statements required.

**Disposal:**

No disposal precautionary statements required.

**Hazard(s) not otherwise**

**Classified (HNOC):** None known.

**Percentage of ingredient(s) of unknown acute toxicity:**

Not applicable

**SECTION 3: Composition/information on ingredients**

**Mixture:**

Chemical name	CAS#	Concentration (weight %)
None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R 1910.1200		

**SECTION 4: First-aid Measures**

**Description of necessary measures:**

**Inhalation:** Move to fresh air. Get medical attention if symptoms develop.

**Skin contact:** Wash off with warm water and soap for 15 minutes. Get medical attention if irritation develops or persists.

**Eye contact:** Flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Ingestion:** Induce vomiting. Consult physician or local poison control center.

**Most important symptoms/effects, acute and delayed:** None normally expected. Upon prolonged contact, may cause temporary eye discomfort. If material is used in extreme heat (>120° F), prolonged and repeated exposure could pose a risk of pulmonary disease.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet.

### SECTION 5: Fire-fighting measures

**Suitable extinguishing media:** Not flammable by OSHA criteria. Use extinguishing media suitable for surrounding materials.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** None expected.

Combustion products - Excessive heat and burning may release oxides of carbon and nitrogen.

**Special protective equipment and precautions for fire-fighters:** Containers should be cooled with water to prevent vapor pressure build up. Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do so without risk. For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

### SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

**Methods and material for containment and cleaning up:**

Wipe up, shovel or vacuum spilled material. Clean up spills immediately as they can be dangerously slippery.

### SECTION 7: Handling and Storage

**Precautions for safe handling:** Keep away from children, infants and pets. Avoid contact with skin. Avoid contact with eyes. Wear personal protective equipment. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

**Conditions for safe storage, including any incompatibles:**

Store at temperatures between 40 - 120° F. Avoid freezing.

### SECTION 8: Exposure controls/personal protection

**Control Parameters:**

**Occupational exposure limits:**

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
Not applicable		

US ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
Not applicable		

USA. Workplace Environmental Exposure Levels (WEEL)		
Substance	TWA	STEL
Not applicable		

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Special local ventilation is recommended to keep mists below exposure limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** The use of safety glasses or splash goggles are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).

**Skin and Hand protection:** None normally required. If worn, use neoprene. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Respiratory protection:** No personal respiratory protective equipment normally required.

**Other:** Eye fountain in work area is recommended.

**Thermal hazards:** No data available.

## SECTION 9: Physical and chemical properties

**Appearance**

**Physical state:**

Paste

**Form:**

Yellow creamy paste.

**Color:**

Yellow.

**Odor:**

Slight odor.

**Odor threshold:**

No data available

<b>pH:</b>	6.5-8.0.
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	212°F 100°C
<b>Flash point:</b>	None
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	The product is not flammable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%):</b>	Not applicable
<b>Flammability limit – upper (%):</b>	Not applicable
<b>Explosive limit – lower (%):</b>	Not applicable
<b>Explosive limit – upper (%):</b>	Not applicable
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative Density:</b>	0.97-0.99
<b>Solubility(ies):</b>	Moderate
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	81000 cps @ 1 rpm 158°F 87500 cps @ 1 rpm 77°F
<b>Other information:</b>	
<b>Percent volatile by volume (%):</b>	< 90%
<b>Percent solid by weight:</b>	~20%

## SECTION 10: Stability and Reactivity

<b>Reactivity:</b>	Not chemically reactive.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated conditions of use.
<b>Possibility of hazardous reactions:</b>	Hazardous reactions not anticipated.
<b>Conditions to avoid:</b>	None expected.
<b>Incompatible materials:</b>	Avoid strong oxidizers.
<b>Hazardous decomposition Products:</b>	Excessive heat and burning may release oxides of carbon and nitrogen.

## SECTION 11: Toxicological information

### Information on likely routes of exposure:

<b>Inhalation:</b>	Not an expected route of entry.
<b>Ingestion:</b>	Not an expected route of entry.
<b>Skin:</b>	Skin contact is a primary route of entry.
<b>Eyes:</b>	Not an expected route of entry.

### Symptoms related to the physical, chemical, and toxicological characteristics:

None normally expected. If material is used in extreme heat (>120° F), prolonged and repeated exposure could pose a risk of pulmonary disease.

**Delayed and immediate effects and chronic effects from short or long-term exposure:**

Upon prolonged contact, may cause temporary eye discomfort.

**Numerical measures of toxicity:**

**Ingredient Information:**

Substance	Test Type (species)	Value
Not applicable	LD <sub>50</sub> Oral (Rat)	
	LD <sub>50</sub> Dermal (Rabbit)	
	LC <sub>50</sub> Inhalation (Rat)	

**Product Acute Toxicity Estimates:**

Acute Oral Toxicity – no data available

Acute Dermal Toxicity - no data available

Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:**

No information available on the mixture, however none of the components have been classified as skin corrosive/irritant (or are below the concentration threshold for classification).

**Serious eye damage/eye irritation:**

No information available on the mixture, however none of the components have been classified as causing eye damage/eye irritation (or are below the concentration threshold for classification).

**Respiratory sensitization:**

No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).

**Skin sensitization:**

No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).

**Germ cell mutagenicity:**

No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

**Carcinogenicity:**

No information available on the mixture, however none of the components are listed in the National

Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

**Reproductive toxicity:**

No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Single exposure:**

No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Repeat exposure:**

No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).

**Aspiration hazard:**

No information available on the mixture, however none of the components have been classified for Aspiration hazard (or are below the concentration threshold for classification).

**Further information:**

No data available.

**SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
Not applicable	LC <sub>50</sub>	Fish	
	LC <sub>50</sub>	Aquatic Invertebrates	
	EC <sub>50</sub>	Algae	

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other adverse effects:** No data available.

### SECTION 13: Disposal considerations

**Disposal instructions:**

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties.

### SECTION 14: Transport Information

**US Department of Transportation Classification (49CFR)**

This material is not classified as dangerous under DOT regulations.

**IMDG**

This material is not classified as dangerous under IMDG regulations.

**IATA (Country variations may apply)**

This material is not classified as dangerous under IATA regulations

**Environmental hazards**

Marine pollutant: No.

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)**

No further relevant information available.

**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.**

None.

### SECTION 15: Regulatory Information

**Safety, health and environmental regulations specific for the product.**

**USA:**

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is not hazardous under OSHA.

**Toxic Substances Control Act (TSCA)** – All substances in this product are exempt from the TSCA inventory.

**SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substance List, 40 CFR 302.4:**

None listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

**SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

**Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** No

**Chronic Health Hazard:** No

**Fire Hazard:** No

**Pressure Hazard:** No

**Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):**

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: None

**STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986:** No components are listed on Prop 65 as a carcinogen.

**Massachusetts Right to Know:** No components are listed on the Massachusetts Right to Know List.

**New Jersey Right to Know:** No components are listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** No components are listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** Not applicable.



**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: May 12, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

<b>IRWIN Chalk – Red, Permanent</b>	<b>December 23, 2016</b>
	<b>Revision 2</b>

**1. PRODUCT and COMPANY IDENTIFICATION**

Commercial Product Name: IRWIN Chalk – Red, Permanent

Company: IRWIN Tools

Use of product: Snap line mark

Emergency contact: 1-800-464-7946 8:00am-5:00pm Monday-Friday

**2. HAZARDS IDENTIFICATION****Hazards Identification: GHS Classification and Hazard Statement****Carcinogenicity** – May cause cancer (lung) Category 1A, H350**Signal Word: DANGER****Precautionary Statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves and eye protection.

P308 and P313 If exposed or concerned, get medical advice/attention.

P405 Store locked up.

**Hazards Not Otherwise Classified or Not Covered by GHS:****Eye:** May cause irritation. Chalk dust is discomforting and abrasive to the eyes.**Skin:** Prolonged skin contact may cause irritation. When the product is used as intended, it is unlikely to cause discomfort.**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation. Ingestion is considered an unlikely route of entry in commercial or industrial environments.**Inhalation:** May cause respiratory tract irritation. When the product is used as intended, it is unlikely to cause discomfort.**Chronic:** Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). Prolonged inhalation of iron oxide dust is known to produce a benign lung condition known as siderosis. When the product is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.**DANGER****Hazard Ratings:****Hazardous Material Identification System (HMIS):**

Health 2\*, Flammability 0, Reactivity 0 \*chronic effects

**National Fire Protection Association (NFPA):**

Health 2, Flammability 0, Reactivity 0

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance name	Value (%)	CAS No.	EC No.
Calcium carbonate	75 - 80	471-34-1	207-439-9
Red Iron Oxide	20 - 25	1309-37-1	215-168-2
Silica (crystalline quartz) <sup>1</sup>	0.1 - 1	14808-60-7	238-878-4

<sup>1</sup> Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

# SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

## 4. FIRST AID MEASURES

**Inhalation:** Remove from exposure and move to fresh air immediately. Encourage the patient to blow nose to ensure clear breathing passages. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Skin contact:** Wet clothing first to minimize dust generation, then; remove contaminated clothing and shoes. Launder contaminated clothing before wearing again. Wash affected area with water (and soap if available) Get medical aid in the event of irritation.

**Eye contact:** Do not rub eyes, rubbing may cause abrasions. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Ingestion:** If the victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

**Additional advice:** Show this safety data sheet to the doctor in attendance

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Substance is noncombustible, however; the containers may burn, releasing carbon monoxide, and carbon dioxide. Use appropriate extinguishing media for the combustible material involved in a fire.

**Explosion:** No information found.

**Specific hazards:** If oxidation of this product should occur, heat will be liberated which could cause surrounding combustibles to burn.

**Special protective equipment for Firefighters:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Wear appropriate personal protective equipment as specified in Section 8.

**Environmental precautions:** Do not allow this material to be released to the environment without proper governmental permits.

**Methods for cleaning up:** Recover the product whenever possible. Avoid generating dust when sweeping/shoveling up. If required, wet the material with water to prevent creating dust. Pick up and place in a suitable container for reclamation or disposal. Follow applicable OSHA regulations (29 CFR 1910.120)

## 7. HANDLING AND STORAGE

**Storage:** Store this product in a tightly-closed container in a dry, well-ventilated area away from incompatible substances.

**Handling:** Avoid creating, or breathing dust. Practice good personal hygiene, (hand washing, etc.) after using this product. Avoid contact with skin and eyes.

**Packaging material:** No information found.

# SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Component	CAS No.	% by weight	Exposure Limit 8-Hour TWA <sup>1</sup> (mg/m <sup>3</sup> )		
			OSHA PEL	ACGIH TLV	NIOSH REL
Calcium Carbonate (Limestone)	471-34-1; (1317-65-3)	70-75	15 <sup>2</sup> 5 <sup>3</sup>	10 <sup>2</sup>	10 <sup>2</sup> 5 <sup>3</sup>
Red Iron Oxide	1309-37-1	25-30	10	5 <sup>3</sup>	5
Silica-Crystalline Quartz <sup>4</sup>	14808-60-7	0.1-1.0	0.05 <sup>3</sup>	0.025 <sup>3</sup>	0.05 <sup>3</sup>

<sup>1</sup> TWA = Time-weighted average

<sup>2</sup> Total dust.

<sup>3</sup> Respirable dust.

<sup>4</sup> Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

**Exposure and Engineering Controls:** Facilities storing or utilizing this material should have potable water available for washing eyes and skin. Use sufficient general area (or outdoor) ventilation. Local exhaust ventilation should be used if airborne concentrations of dust exceed limits cited in Section 8.

### Personal protective equipment:

**Hand protection:** Wear protective gloves

**Eye protection:** Wear safety glasses, or chemical goggles in windy conditions or where eye contact is possible.

**Respiratory protection:** When engineering controls are not sufficient to reduce exposure, seek professional advice prior to respirator selection and use. Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**Hygiene measures:** Wash contaminated clothing before reuse.

**Environmental exposure controls:** No information found.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder
Color:	Black
Odor:	Odorless.
pH (at 10% solids):	8.5-9.5
Boiling point/range:	No data available.
Melting point/range:	Decomposes at 1,517 °F (825°C).
Flash point:	No data available.
Evaporation rate:	No data available.
Vapor density:	No data available.
Solubility in water:	<0.0002 (Trace)
Explosive properties:	No data available.
Oxidizing properties:	No data available.
Vapor pressure:	No data available.
Relative density (H <sub>2</sub> O=1):	3.40-3.45
Viscosity:	No data available.
Partition coefficient (n-octanol/water):	No data available.

# SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal temperatures and pressures.

**Hazardous decomposition products:** Carbon monoxide, carbon dioxide, calcium oxide.

**Materials to avoid:** Strong oxidizing agents, acids, aluminum, fluorine, magnesium, peroxides hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

**Conditions to avoid:** Incompatible materials.

**Hazardous Polymerization:** Does not occur.

## 11. TOXICOLOGICAL INFORMATION

Note: Toxicological effects described in this section are those that would be expected based on data from the components of this product.

**Acute toxicity:** Calcium carbonate (CAS# 471-34-1): Draize test, rabbit, eye: 750 ug/24H Severe; Draize test, rabbit, skin: 500 mg/24H Moderate; Oral, rat: LD50 = 6,450mg/kg.

**Inhalation:** (Silica, crystalline quartz) Human: LC<sub>Lo</sub>: 300 µg/m<sup>3</sup>/ intermittent exposure over a 10-year period produced pulmonary system effects.

**Skin contact:** (Calcium carbonate) Rabbit: 500mg administered for 24 hours produces moderate skin irritation.

**Eye contact:** (Calcium carbonate) Rabbit: 0.750 mg administered for 24 hours produced severe irritation.

**Ingestion:** (Calcium carbonate) Rat: LD<sub>50</sub>: 6,450 mg/kg.  
(Iron Oxide) Rat: LD<sub>50</sub>: >5,000 mg/kg.

**Chronic toxicity/Carcinogenicity:** Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). When the product is used as intended, dust levels should not exceed exposure limits.

Quartz – crystalline silica:

The International Agency for Research on Cancer (IARC) has designated this substance Group 1, "carcinogenic to humans".

The National Toxicology Program (NTP) has designated this substance: Group K "known to be a human carcinogen"

American Conference of Governmental Industrial Hygienists (ACGIH) has designated this substance A2; suspected human carcinogen. The agent is carcinogenic in experimental animals at dose levels, by route of administration, at sites of histologic type(s) or by mechanism(s) considered relevant to worker exposure. Available epidemiologic studies are conflicting or insufficient to confirm an increased risk of cancer in exposed humans.

## 12. ECOLOGICAL INFORMATION

Bioaccumulation: No information found.

Ecotoxicity effects: No information found.

Fish Toxicity: Golden Orfe (*Leuciscus idus*) LC<sub>Lo</sub>: greater than 1,000 mg/l. Limestone (which is primarily composed of calcium carbonate) is not classified as a "Toxic pollutant" or a "hazardous substance under Section 307 and 311 of the United States Clean Water Act.

## 13. DISPOSAL CONSIDERATIONS

Waste from residues of this product is not a hazardous waste according to U.S. Environmental Protection Agency (EPA) regulations. Disposal by landfill may be acceptable.

Consult an expert on the disposal of recovered material for compliance with state, provincial, and/or local regulations.

# SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

## 14. TRANSPORT INFORMATION

**U.S. DOT:** Not regulated

**ADR/RID:** Not regulated

**IMDG:** Not regulated

**ICAO/IATA:** Not regulated

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

**OSHA:** Ingredients are listed as air contaminants (29 CFR 1910.1000).

Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**TSCA** (Toxic Substance Control Act): All components of this product are listed on the TSCA inventory.

**CERCLA:** Hazardous Substance, (40 CFR 302.4): Not Listed.  
Extremely Hazardous Substance (40 CFR 355): Not Listed.

**SARA Hazard Category:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category:

"An immediate (acute) and chronic health hazard."

Chemicals subject to the reporting requirements of Section 313 or Title III of SARA and 40 CFR Part 372: None.

### STATE REGULATIONS:

#### California's "Safe Drinking Water and Toxic Enforcement Act of 1986" (Proposition 65)

This product contains the following Proposition 65 regulated materials known to the State of California to cause cancer or reproductive harm. The listed typical amounts are a result of their natural presence in the raw materials from which this product is produced.

Silica-crystalline quartz	equal to, or less than 1.0 percent
---------------------------	------------------------------------

**CANADA WHIMS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the SDS contains all of the information required by the CPR.

## 16. OTHER INFORMATION

The contents and format of this SDS are in accordance with the U.S. Hazard Communication Standard 29 CFR 1910.1200; the Canadian CPR, and Workplace Hazardous Materials Information System (WHMIS); and EEC Commission Directive 1999/45/EC, and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

# SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

End of document

**IRWIN Chalk – Yellow, Hi-Vis****December 23, 2016****Revision 2****1. PRODUCT and COMPANY IDENTIFICATION**

Commercial Product Name: IRWIN Chalk – Yellow, Hi-Vis

Company: IRWIN Tools

Use of product: Snap line mark

Emergency contact: 1-800-464-7946 8:00am-5:00pm Monday-Friday

**2. HAZARDS IDENTIFICATION****Hazards Identification: GHS Classification and Hazard Statement****Carcinogenicity** – May cause cancer (lung) Category 1A, H350**Signal Word: DANGER****Precautionary Statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves and eye protection.

P308 and P313 If exposed or concerned, get medical advice/attention.

P405 Store locked up.

**Hazards Not Otherwise Classified or Not Covered by GHS:****Eye:** May cause irritation. Chalk dust is discomforting and abrasive to the eyes.**Skin:** Prolonged skin contact may cause irritation. When the product is used as intended, it is unlikely to cause discomfort.**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation. Ingestion is considered an unlikely route of entry in commercial or industrial environments.**Inhalation:** May cause respiratory tract irritation. When the product is used as intended, it is unlikely to cause discomfort.**Chronic:** Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). When the product is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.**DANGER****Hazard Ratings:****Hazardous Material Identification System (HMIS):**

Health 2\*, Flammability 0, Reactivity 0 \*chronic effects

**National Fire Protection Association (NFPA):**

Health 2, Flammability 0, Reactivity 0

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance name	Value (%)	CAS No.	EC No.
Calcium carbonate	75 - 80	471-34-1	207-439-9
Yellow Iron Oxide	20 - 25	51274-00-1	257-098-5
Silica (crystalline quartz) <sup>1</sup>	0.1 - 1	14808-60-7	238-878-4

<sup>1</sup> Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.



# SAFETY DATA SHEET

IRWIN Chalk – Yellow, Hi-Vis

## 4. FIRST AID MEASURES

**Inhalation:** Remove from exposure and move to fresh air immediately. Encourage the patient to blow nose to ensure clear breathing passages. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Skin contact:** Wet clothing first to minimize dust generation, then; remove contaminated clothing and shoes. Launder contaminated clothing before wearing again. Wash affected area with water (and soap if available) Get medical aid in the event of irritation.

**Eye contact:** Do not rub eyes, rubbing may cause abrasions. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Ingestion:** If the victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

**Additional advice:** Show this safety data sheet to the doctor in attendance

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Substance is noncombustible, however; the containers may burn, releasing carbon monoxide, and carbon dioxide. Use appropriate extinguishing media for the combustible material involved in a fire.

**Explosion:** No information found.

**Specific hazards:** If oxidation of this product should occur, heat will be liberated which could cause surrounding combustibles to burn.

**Special protective equipment for Firefighters:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Wear appropriate personal protective equipment as specified in Section 8.

**Environmental precautions:** Do not allow this material to be released to the environment without proper governmental permits.

**Methods for cleaning up:** Recover the product whenever possible. Avoid generating dust when sweeping/shoveling up. If required, wet the material with water to prevent creating dust. Pick up and place in a suitable container for reclamation or disposal. Follow applicable OSHA regulations (29 CFR 1910.120)

## 7. HANDLING AND STORAGE

**Storage:** Store this product in a tightly-closed container in a dry, well-ventilated area away from incompatible substances.

**Handling:** Avoid creating, or breathing dust. Practice good personal hygiene, (hand washing, etc.) after using this product. Avoid contact with skin and eyes.

**Packaging material:** No information found.

# SAFETY DATA SHEET

IRWIN Chalk – Yellow, Hi-Vis

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Component	CAS No.	% by weight	Exposure Limit 8-Hour TWA <sup>1</sup> (mg/m <sup>3</sup> )		
			OSHA PEL	ACGIH TLV	NIOSH REL
Calcium Carbonate (Limestone)	471-34-1; (1317-65-3)	75 - 80	15 <sup>2</sup> 5 <sup>3</sup>	10 <sup>2</sup>	10 <sup>2</sup> 5 <sup>3</sup>
Yellow Iron Oxide-Pigment Yellow 42	51274-00-1	20 - 52	10	5 <sup>3</sup>	5
Silica-Crystalline Quartz <sup>4</sup>	14808-60-7	0.1-1.0	0.05 <sup>3</sup>	0.025 <sup>3</sup>	0.05 <sup>3</sup>

<sup>1</sup> TWA = Time-weighted average

<sup>2</sup> Total dust.

<sup>3</sup> Respirable dust.

<sup>4</sup> Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

**Exposure and Engineering Controls:** Facilities storing or utilizing this material should have potable water available for washing eyes and skin. Use sufficient general area (or outdoor) ventilation. Local exhaust ventilation should be used if airborne concentrations of dust exceed limits cited in Section 8.

### Personal protective equipment:

**Hand protection:** Wear protective gloves

**Eye protection:** Wear safety glasses, or chemical goggles in windy conditions or where eye contact is possible.

**Respiratory protection:** When engineering controls are not sufficient to reduce exposure, seek professional advice prior to respirator selection and use. Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**Hygiene measures:** Wash contaminated clothing before reuse.

**Environmental exposure controls:** No information found.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder
Color:	Yellow
Odor:	Odorless.
pH (at 10% solids):	8.5-9.5
Boiling point/range:	No data available.
Melting point/range:	Decomposes at 1,517 °F (825°C).
Flash point:	No data available.
Evaporation rate:	No data available.
Vapor density:	No data available.
Solubility in water:	<0.0002 (Trace)
Explosive properties:	No data available.
Oxidizing properties:	No data available.
Vapor pressure:	No data available.
Relative density (H <sub>2</sub> O=1):	3.30-3.35
Viscosity:	No data available.
Partition coefficient (n-octanol/water):	No data available.

# SAFETY DATA SHEET

IRWIN Chalk – Yellow, Hi-Vis

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal temperatures and pressures.

**Hazardous decomposition products:** Carbon monoxide, carbon dioxide, calcium oxide.

**Materials to avoid:** Strong oxidizing agents, acids, aluminum, fluorine, magnesium, peroxides, hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

**Conditions to avoid:** Incompatible materials.

**Hazardous Polymerization:** Does not occur.

## 11. TOXICOLOGICAL INFORMATION

Note: Toxicological effects described in this section are those that would be expected based on data from the components of this product.

**Acute toxicity:** Calcium carbonate (CAS# 471-34-1): Draize test, rabbit, eye: 750 ug/24H Severe; Draize test, rabbit, skin: 500 mg/24H Moderate; Oral, rat: LD50 = 6,450mg/kg.

**Inhalation:** (Silica, crystalline quartz) Human: LC<sub>Lo</sub>: 300 µg/m<sup>3</sup>/ intermittent exposure over a 10-year period produced pulmonary system effects.

**Skin contact:** (Calcium carbonate) Rabbit: 500mg administered for 24 hours produces moderate skin irritation.

**Eye contact:** (Calcium carbonate) Rabbit: 0.750 mg administered for 24 hours produced severe irritation.

**Ingestion:** (Calcium carbonate) Rat: LD<sub>50</sub>: 6,450 mg/kg.  
(Iron Oxide) Rat: LD<sub>50</sub>: >5,000 mg/kg.

**Chronic toxicity/Carcinogenicity:** Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). When the product is used as intended, dust levels should not exceed exposure limits.

Quartz – crystalline silica:

The International Agency for Research on Cancer (IARC) has designated this substance Group 1, "carcinogenic to humans".

The National Toxicology Program (NTP) has designated this substance: Group K "known to be a human carcinogen"

American Conference of Governmental Industrial Hygienists (ACGIH) has designated this substance A2; suspected human carcinogen. The agent is carcinogenic in experimental animals at dose levels, by route of administration, at sites of histologic type(s) or by mechanism(s) considered relevant to worker exposure. Available epidemiologic studies are conflicting or insufficient to confirm an increased risk of cancer in exposed humans.

## 12. ECOLOGICAL INFORMATION

Bioaccumulation: No information found.

Ecotoxicity effects: No information found.

Fish Toxicity: Golden Orfe (*Leucisus idus*) LC<sub>Lo</sub>: greater than 1,000 mg/l. Limestone (which is primarily composed of calcium carbonate) is not classified as a "Toxic pollutant" or a "hazardous substance under Section 307 and 311 of the United States Clean Water Act.

## 13. DISPOSAL CONSIDERATIONS

Waste from residues of this product is not a hazardous waste according to U.S. Environmental Protection Agency (EPA) regulations. Disposal by landfill may be acceptable.

Consult an expert on the disposal of recovered material for compliance with state, provincial, and/or local regulations.

# SAFETY DATA SHEET

IRWIN Chalk – Yellow, Hi-Vis

## 14. TRANSPORT INFORMATION

**U.S. DOT:** Not regulated

**ADR/RID:** Not regulated

**IMDG:** Not regulated

**ICAO/IATA:** Not regulated

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

**OSHA:** Ingredients are listed as air contaminants (29 CFR 1910.1000).

Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**TSCA** (Toxic Substance Control Act): All components of this product are listed on the TSCA inventory.

**CERCLA:** Hazardous Substance, (40 CFR 302.4): Not Listed.  
Extremely Hazardous Substance (40 CFR 355): Not Listed.

**SARA Hazard Category:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category:

"An immediate (acute) and chronic health hazard."

Chemicals subject to the reporting requirements of Section 313 or Title III of SARA and 40 CFR Part 372: None.

### STATE REGULATIONS:

#### California's "Safe Drinking Water and Toxic Enforcement Act of 1986" (Proposition 65)

This product contains the following Proposition 65 regulated materials known to the State of California to cause cancer or reproductive harm. The listed typical amounts are a result of their natural presence in the raw materials from which this product is produced.

Silica-crystalline quartz	equal to, or less than 1.0 percent
---------------------------	------------------------------------

**CANADA WHIMS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the SDS contains all of the information required by the CPR.

## 16. OTHER INFORMATION

The contents and format of this SDS are in accordance with the U.S. Hazard Communication Standard 29 CFR 1910.1200; the Canadian CPR, and Workplace Hazardous Materials Information System (WHMIS); and EEC Commission Directive 1999/45/EC, and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

# SAFETY DATA SHEET

IRWIN Chalk – Yellow, Hi-Vis

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

End of document



# SAFETY DATA SHEET

DATE: 1.1.18 Rev 7

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Permanent Marking Chalk Red

**USE OF PRODUCT:** Chalk Box Marking Chalk

**MANUFACTURER:** Keson Industries

**ADDRESS:** 810 Commerce St., Aurora, IL 60504

**EMERGENCY PHONE:** 1-800-345-3766 (8am to 5pm Central Time, Monday – Friday)

---

## SECTION 2: HAZARDS IDENTIFICATION

**OSHA GHS Hazard Statements (Warning Label)**

**DANGER:** May cause cancer (lung)

**Hazard Ratings:**

**Hazardous Material Identification System (HMIS):** Health 1\*, Flammability 0, Reactivity 0\*chronic effects

**National Fire Protection Association (NFPA):** Health 1, Flammability 0, Reactivity 0

**EMERGENCY OVERVIEW:**

**Product Description:** These products are colored, finely powdered, odorless chalks. Health Hazards: Inhalation of dusts from this product may irritate the respiratory system. Skin and eye contact may cause mechanical abrasion. These chalks contain Crystalline Silica, a known human carcinogen by inhalation.

**Flammability Hazards:** These chalks are not flammable. Finely divided dusts from these products can form explosive mixtures in air. If involved in a fire, these products may decompose to form iron oxides, aluminum oxides, silicon dioxide, sulfur dioxide, magnesium oxides, carbon oxides and calcium oxides.

## POTENTIAL HEALTH EFFECTS

**EYES:** May cause irritation. Chalk dust is discomforting and abrasive to the eyes.

**SKIN:** Prolonged contact may cause irritation. When the product is used as intended, it is unlikely to cause problems.

**INGESTION:** Ingestion of large amount may cause internal irritation. Ingestion is considered an unlikely route of entry in commercial or industrial environments.

**INHALATION:** May irritate the respiratory system. When the product is used as intended, it is unlikely to cause problems.

**Chronic:** Repeated or prolonged inhalation exposure to crystalline silica dust beyond exposure limits may cause chronic lung injury (silicosis). Prolonged inhalation of iron oxide dust is known to produce a benign lung condition known as siderosis. When the product is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.



**WARNING**



**DANGER**

Obtain special instructions before use. May cause cancer by inhalation. Avoid breathing dust or fume. Causes serious eye irritation. Causes mild skin irritation. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection.



# SAFETY DATA SHEET

DATE: 1.1.18 Rev 7

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance name	Value (%)	CAS No.	EC No.
Calcium carbonate (1)	40-60	471-34-1	207-439-9
Red Iron Oxide	40-60	1317-61-9	215-168-2
Silica (crystalline quartz) (1)	0.1 - 1	14808-60-7	238-878-4

1 Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

---

## SECTION 4: FIRST AID MEASURES

**EYES:** If product enters the eye do not rub, rubbing may cause abrasions. Flush eyes with copious amounts of water for 15 minutes, occasionally lifting upper and lower eyelids. If adverse effects persist after flushing with water, get medical aid.

**SKIN:** Wet clothing first to minimize dust generation, then; remove contaminated clothing and shoes. Wash contaminated clothing before wearing again. Wash infected areas with water and soap. Get medical attention in the event of irritation.

**INGESTION:** If this material is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, seek immediate medical attention. If alert, victim should drink up to three glasses of water. Do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If victim is convulsing, maintain an open airway and obtain emergency medical attention.

**INHALATION:** If dust or particulates are inhaled, Remove from exposure and move to fresh air immediately. Encourage to blow nose to ensure clear breathing passages. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:** Show this data safety sheet to medical professionals.

---

## SECTION 5: FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Substance is noncombustible, however; the containers may burn, releasing carbon monoxide and carbon dioxide. Use appropriate extinguishing media for the combustible material involved in a fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** As in any fire, wear self-contained breathing apparatus in pressure demand and full protective gear.

**FIRE EXTINGUISHING MEDIA:** Unless incompatibilities exist for surrounding materials, carbon dioxide, water spray, "ABC" type chemical extinguishers, foam, dry chemical and halon extinguishers can be used to fight fires involving this material.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Finely divided dusts from this material pose a hazard of an air/dust explosion in presence of an ignition source

**HAZARDOUS DECOMPOSITION PRODUCTS:** If oxidation of this product should occur, heat will be liberated which could cause surrounding combustibles to burn.



# SAFETY DATA SHEET

DATE: 1.1.18 Rev 7

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**ACCIDENTAL RELEASE MEASURES:** Wear appropriate personal protective equipment. Do not allow this material to be released into the environment. Recover the product whenever possible. Avoid generating dust when sweeping or shoveling up. If required, wet the material with water to prevent creating dust. Pick up and place in a suitable container for reclamation or disposal.

**Cleanup of Small Spills:** Solids should be gently covered with wet absorbent pads. Clean spill with pad and dispose of properly. Decontaminate the spill area (three times) using a bleach and detergent solution and then rinse with clean water.

**Large Spills:** Restrict access to the spill areas. For spills of greater than 5 g, be sure not to generate dusts by gently covering with damp absorbent sheets, spill-control pads, pillows, cloths, or towels. The dispersion of particles into surrounding air and the possibility of inhalation is a serious matter and should be treated as such. Do not apply chemical in-activators as they may produce hazardous by-products. Sweep up or vacuum spilled solid (an explosion-proof vacuum should be used), avoiding the generation of airborne dusts. Decontaminate the area thoroughly.

**All Spills:** Use procedures described above and then place all spill residues in an appropriate, labeled container and seal. Move to a secure area. Dispose of in accordance with Federal, State, and local hazardous waste disposal regulations (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

---

## SECTION 7: HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing airborne dusts generated by this product. Use in a well-ventilated area. Ensure this product is used with adequate ventilation and personal protective equipment (see Section 8, Exposure Controls and Personal Protection). Avoid airborne dusts generated by this product. Clean work areas routinely to prevent accumulation of dust. Clean up spills promptly.

**CONDITIONS FOR SAFE STORAGE:** Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Have appropriate extinguishing equipment in the storage area (e.g., sprinkler system, portable fire extinguishers). Keep container tightly closed when not in use. Refer to NFPA 654, *Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids* for additional information on storage.

**SPECIFIC END USE(S):** These products are used in chalk line devices in construction. Follow all industry standards for use of this product.

**PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:** Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment thoroughly, before maintenance begins. Collect all residue and dispose of according to applicable or applicable federal, state, provincial and local standards.

---





# SAFETY DATA SHEET

DATE: 1.1.18 Rev 7

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit 8-Hour TWA<sup>1</sup>(mg/m<sup>3</sup>)

Component	CAS No.	% by weight	OSHA PEL	ACGIH TLV	NIOSH REL
Calcium Carbonate (Limestone) (4)	471-34-1; (1317-65-3)	40-60	15(2), 5 (3)	10(2)	10(2), 5(3)
Red Iron Oxide	1317-61-9	40-60	10	5(3)	5
Silica-Crystalline Quartz (4)	14808-60-7	0.1-1.0	10(2,5),3.3(3,5)	0.05(3)	0.05(3)

<sup>1</sup>TWA = Time-weighted average

<sup>2</sup>Total dust.

<sup>3</sup>Respirable dust.

<sup>4</sup>Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

<sup>5</sup>Using the OSHA quartz formula, this PEL was calculated assuming crystalline silica content of 1.0% in this ingredient.

**SPECIAL NOTE:** The following information is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including U.S. Federal OSHA Respiratory Protection (29 CFR 1910.134), OSHA Eye Protection 29 CFR 1910.133, OSHA Hand Protection 29 CFR 1910.138, OSHA Foot Protection 29 CFR 1910.136 and OSHA Body Protection 29 CFR 1910.132), equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Z94.3-M1982, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), or standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand protection, and CR 13464:1999 for face/eye protection). Please reference applicable regulations and standards for relevant details.

**ENGINEERING CONTROLS:** Facilities storing or utilizing this material should have potable water available for washing of eyes and skin. Use sufficient general area ventilation. To ensure exposure levels are maintained below the limits provided in this section if applicable.

**VENTILATION:** Local ventilation should be used.

**RESPIRATORY PROTECTION:** Maintain airborne contaminant concentrations below exposure limits listed above. For materials without listed exposure limits, minimize respiratory exposure. If necessary, use only respiratory protection authorized under appropriate regulations. Oxygen levels below 20% are considered IDLH by U.S. OSHA. In such atmospheres, use of a full-face piece pressure/demand SCBA or a full face piece, supplied air respirator with auxiliary self-contained air supply is required under U.S. OSHA's Respiratory Protection Standard (1910.134-1998).

**EYE PROTECTION:** Wear safety goggles/glasses as appropriate for the task if dust or other particulates are present. Face shields maybe recommended if solutions are made. If necessary, refer to appropriate regulations.

**SKIN PROTECTION:** Use appropriate protective clothing for the task. Full-body protective clothing and gloves are recommended for emergency response procedures. If necessary, refer to the U.S. OSHA Technical Manual (Section VII: Personal Protective Equipment) or other appropriate regulations.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** No information found.

**WORK HYGIENIC PRACTICES:** Wash contaminated clothing before reuse.

**EXPOSURE GUIDELINES:** No information found.



# SAFETY DATA SHEET

DATE: 1.1.18 Rev 7

PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		SEE SECTION 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate  
3 = Serious 4 = Severe \* = Chronic hazard

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Powder – Red Color

**ODOR:** Odorless

**pH AS SUPPLIED:** 8.5-9.5 (at 10% solids)

**BOILING POINT:** No Data Available

**MELTING POINT:** Decomposes

F: 1517 Deg

C: 825Deg

**FREEZING POINT:** No Data Available.

**VAPOR PRESSURE (mmHg):** No Data Available.

**VAPOR DENSITY (AIR = 1):** No Data Available.

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** No Data Available.

**EVAPORATION RATE:** No Data Available.

---

## SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** Stable under normal temperatures and pressures.

**CONDITIONS TO AVOID (STABILITY):** Incompatible materials

**INCOMPATIBILITY (MATERIAL TO AVOID):** Strong oxidizing agents, acids, aluminum, fluorine, magnesium, peroxides, hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Carbon monoxide, carbon dioxide, calcium oxide.

**HAZARDOUS POLYMERIZATION:** Does not occur.

---



# SAFETY DATA SHEET

DATE: 1.1.18 Rev 7

## SECTION 11: TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL INFORMATION: SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE:** The most significant routes of industrial exposure to this product are by skin or eye contact and inhalation.

**INHALATION:** If dusts or particulates from these products are inhaled, irritation of the nose, throat, and lungs can occur. Symptoms may include sneezing, coughing, nasal congestion, and difficulty breathing. Symptoms are generally alleviated upon exposure to fresh air. If heated, chronic exposure to concentrations of silicon dioxide fume may cause chronic obstructive lung disease. Inhalation of iron oxide fume or dust is cause of pulmonary roentgen graphic appearance called siderosis, or an accumulation of iron that leads to reduced lung capacity. These products contain Crystalline Silica, which is a known human carcinogen. Chronic inhalation exposure to this material may cause silicosis, pulmonary fibrosis, bronchitis or present a hazard of cancer, due to the presence of Crystalline Silica.

**CONTACT WITH SKIN or EYES:** Skin contact may cause abrasion, redness, and discomfort. Prolonged and repeated skin exposure may cause dermatitis (dry, red skin). Direct eye contact with these products may cause stinging, abrasions, and redness. Dust can cause mechanical irritation to the eye. Repeated contact of dust with the eyes can cause conjunctivitis a disease that may cause eyes to become pink and sore), or can cause discoloration of the eyes.

**SKIN ABSORPTION:** This product does not pose a hazard of skin absorption.

**INGESTION:** Ingestion is an unlikely route of occupational exposure to this product. In the unlikely event that dusts from the product are ingested nausea, vomiting, and diarrhea may result.

Repeated ingestion of iron compounds can cause vomiting, diarrhea, pink urine, black stool, and liver or kidney damage. Repeated ingestion of iron compounds can also cause siderosis, which is an accumulation of iron in tissues.

**Chronic:** Repeated inhalation exposure of crystalline silica above safe levels may cause adverse effects to the respiratory system. Chronic inhalation may result in pulmonary fibrosis. This product contains crystalline silica, which is a known human carcinogen.

**SECTION 11 NOTES:** The International Agency for Research on Cancer (IARC) classified (quartz) crystalline silica (cs) as a probable carcinogen and in 1997 reclassified it as a Group 1 carcinogen, i.e., that there was sufficient evidence for carcinogenicity in experimental animals and sufficient evidence for carcinogenicity in humans. In its Ninth Annual Report on Carcinogens, the National Toxicology Program (NTP) listed crystalline silica as a known human carcinogen, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to respirable crystalline silica and increased lung cancer rates in workers exposed to crystalline silica dust. The International Agency for Research on Cancer (IARC) has evaluated crystalline silica and determined that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)."

---

## SECTION 12: ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** Safe practices must be in place to prevent environmental contamination.

**SECTION 12 NOTES:** These products have not been tested for aquatic or animal toxicity. All release to terrestrial, atmospheric and aquatic environments should be avoided.

---



# SAFETY DATA SHEET

DATE: 1.1.18 Rev 7

## SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Waste from residue of this product is NOT hazardous waste according to the EPA regulations. Disposal by landfill may be acceptable. Waste disposal must follow all US Federal, State and Local (EPA) regulations, Canadian and European Governmental Guidelines.

---

## SECTION 14: TRANSPORT INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION:** (DOT) These products are not classified as dangerous goods under the DOT regulations 49CFR: 172.101

**WATER TRANSPORTATION:** (IMO) Not classified as dangerous

**AIR TRANSPORTATION:** (ATA) Not classified as dangerous

---

## SECTION 15: REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS

**OSHA:** Components are listed as air contaminants. Regulation standards -29CFR. Standard number 1910.100 Table 2-1

**TSCA (TOXIC SUBSTANCE CONTROL ACT):** All components are listed on the TSCA inventory

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):** Not Listed

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):** The components of this product has been reviewed on the EAP Hazards Categories in section 311-312 and is considered a chronic health risk.

**STATE REGULATIONS:** California: (Proposition 65) WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm (Silica Crystalline Quartz, CAS Number: 14808-60-7)

**CANADA WHIMS:** (Workplace Hazardous Materials Information System) This SDS sheet contains all of the information needed by the CPR. (Controlled Products Regulation)

**WHIMS CLASSIFICATION D2A:** Very toxic (carcinogenicity)

**EU CLASSIFICATION, LABELING:** This product does meet the definition of hazard class described by the EUROPEAN UNION COUNCIL DIRECTIVE EC# 1272/2008. Classification information for components Crystalline Silica. EU Classification (xn) Harmful EU risk R68/20 harmful: Risk of irreversible damage through inhalation.

---



# SAFETY DATA SHEET

DATE: 1.1.18 Rev 7

## SECTION 16: OTHER INFORMATION

### Hazard Ratings:

**Hazardous Material Identification System (HMIS):** Health 1\*, Flammability 0, Reactivity 0\*chronic effects

**National Fire Protection Association (NFPA):** Health 1, Flammability 0, Reactivity 0



The contents and format of this SDS are in accordance with the U.S. Hazard Communication Standard 29 CFR 1910.1200; the Canadian CPR, and Workplace Hazardous Materials Information System (WHMIS); and EEC Commission Directive 1999/45/EC, and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are correct. However, the information is provided without any warranty, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

**End of document**

# SAFETY DATA SHEET

## Klean Strip Paint Thinner

Page: 1

Revision: 05/24/2017  
Supersedes Revision: 11/16/2015

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Klean Strip Paint Thinner  
**Company Name:** W. M. Barr  
2105 Channel Avenue  
Memphis, TN 38113  
**Phone Number:** (901)775-0100  
**Web site address:** www.wmbarr.com  
**Emergency Contact:** 3E 24 Hour Emergency Contact (800)451-8346  
**Information:** W.M. Barr Customer Service (800)398-3892  
**Intended Use:** Paint, stain, and varnish thinning.  
**Product Code:** CKPT94402, GKPT94002B, DKPT94403CA, EKPT94401, GKPT94002, GKPT94002P, GKPT94002T, GKPT94400, PA12779, QKPT94003, QKPT94203, GKPT94002HDWS, GKPT94002PT, PKPT94004

### 2. HAZARDS IDENTIFICATION

Flammable Liquids, Category 3  
Acute Toxicity: Inhalation, Category 4  
Skin Corrosion/Irritation, Category 2  
Serious Eye Damage/Eye Irritation, Category 2B  
Germ Cell Mutagenicity, Category 1B  
Toxic To Reproduction, Category 2  
Specific Target Organ Toxicity (single exposure), Category 3  
Specific Target Organ Toxicity (repeated exposure), Category 2  
Aspiration Toxicity, Category 1

**GHS Signal Word:****Danger****GHS Hazard Phrases:**

H226: Flammable liquid and vapor.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H320: Causes eye irritation.  
H332: Harmful if inhaled.  
H336: May cause drowsiness or dizziness.  
H340: May cause genetic defects.  
H361: Suspected of damaging fertility or the unborn child.  
H373: May cause damage to Central Nervous System (CNS) through prolonged or repeated exposure.

**GHS Precaution Phrases:**

P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P233: Keep container tightly closed.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting equipment.  
P242: Use only non-sparking tools.  
P243: Take precautionary measures against static discharge.  
P260: Do not breathe gas/mist/vapors/spray.  
P264: Wash hands thoroughly after handling.  
P271: Use only outdoors or in a well-ventilated area.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P281: Use personal protective equipment as required.

Page 384



# SAFETY DATA SHEET

## Klean Strip Paint Thinner

Page: 2

Revision: 05/24/2017  
Supersedes Revision: 11/16/2015

### GHS Response Phrases:

P235: Keep cool.

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302+352: IF ON SKIN: Wash with plenty of soap and water.

P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+313: IF exposed or concerned: Get medical attention/advice.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P314: Get medical attention/advice if you feel unwell.

P321: Specific treatment see label.

P331: Do NOT induce vomiting.

P332+313: If skin irritation occurs, get medical advice/attention.

P337+313: If eye irritation persists, get medical advice/attention.

P362: Take off contaminated clothing and wash before re-use.

P370+378: In case of fire, use dry chemical powder to extinguish.

### GHS Storage and Disposal Phrases:

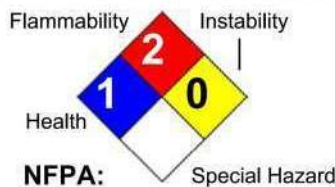
P403+233: Store container tightly closed in well-ventilated place.

P405: Store locked up.

P501: Dispose of contents/container according to local, state and federal regulations.

### Hazard Rating System:

HEALTH	*	1
FLAMMABILITY		2
PHYSICAL		0
PPE		



### HMIS:

### OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

### Potential Health Effects (Acute and Chronic):

Inhalation Acute Exposure Effects:

May cause dizziness; headache; watering of eyes; eye irritation; weakness; nausea; muscle twitches, and depression of central nervous system. Severe overexposure may cause convulsions; unconsciousness; and death. Intentional misuse of this product by deliberately concentrating and inhaling can be harmful or fatal.

Skin Contact Acute Exposure Effects:

May cause irritation; numbness in the fingers and arms; drying of skin; and dermatitis. May cause increased severity of symptoms listed under inhalation.

Eye Contact Acute Exposure Effects:

This material is an eye irritant. May cause irritation; burns; conjunctivitis of eyes; and corneal ulcerations of the eye. Vapors may irritate eyes.

Ingestion Acute Exposure Effects:

Harmful or fatal if swallowed. May cause nausea; weakness; muscle twitches; gastrointestinal irritation; and diarrhea. Severe overexposure may cause convulsions; unconsciousness; and death.

Chronic Exposure Effects:

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged or repeated contact may cause dermatitis. May cause jaundice; bone marrow damage; liver damage; anemia; and skin irritation.

**Medical Conditions Generally** Diseases of the skin, eyes, liver, kidneys, central nervous system and respiratory

Page 385

# SAFETY DATA SHEET

## Klean Strip Paint Thinner

Page: 3

Revision: 05/24/2017  
Supersedes Revision: 11/16/2015

Aggravated By Exposure: system.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
8052-41-3	Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	<=95.0 %
25551-13-7	Benzene, Trimethyl-	<=5.0 %

**Additional Chemical Information** Ingredients vary due to multiple blends and/or raw material suppliers

### 4. FIRST AID MEASURES

#### Emergency and First Aid Procedures:

##### Inhalation:

If user experiences breathing difficulty, move to air free of vapors, Administer oxygen or artificial medical assistance can be rendered.

##### Skin Contact:

Wash with soap and large quantities of water and seek medical attention if irritation from contact persists.

##### Eye Contact:

Flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

##### Ingestion:

Do not induce vomiting. Call your local poison control center, hospital emergency room or physician immediately for instructions to induce vomiting.

If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.

#### Signs and Symptoms Of Exposure:

Inhalation, ingestion, and dermal are possible routes of exposure.

#### Note to Physician:

Call your local poison control center for further information.

**Inhalation:** Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation as required.

**Ingestion:** If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.



## 5. FIRE FIGHTING MEASURES

<b>Flammability Classification:</b>	NFPA Class II
<b>Flash Pt:</b>	> 100.00 F
<b>Explosive Limits:</b>	LEL: 0.5                      UEL: 6
<b>Autoignition Pt:</b>	No data.
<b>Suitable Extinguishing Media:</b>	Use carbon dioxide, dry chemical powder, or foam.
<b>Fire Fighting Instructions:</b>	Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.
<b>Flammable Properties and Hazards:</b>	Combustible Liquid.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	<p>Clean up:</p> <p>Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area.</p> <p>Small spills:</p> <p>Take up with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.</p> <p>Large spills:</p> <p>Dike far ahead of spill for later disposal.</p> <p>Waste Disposal:</p> <p>Dispose in accordance with applicable local, state and federal regulations.</p>
---	--

## 7. HANDLING AND STORAGE

<b>Precautions To Be Taken in Handling:</b>	<p>Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.</p> <p>A static electrical charge can accumulate when this material is flowing through pipes, nozzles or filters, and when it is agitated. A static spark discharge can ignite accumulated vapors particularly during dry weather conditions. Always use proper bonding and grounding procedures.</p>
<b>Precautions To Be Taken in Storing:</b>	<p>Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.</p>

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# SAFETY DATA SHEET

## Klean Strip Paint Thinner

Page: 5

Revision: 05/24/2017  
Supersedes Revision: 11/16/2015

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
8052-41-3	Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	PEL: 500 ppm	TLV: 100 ppm	No data.
25551-13-7	Benzene, Trimethyl-	No data.	TLV: 25 ppm	No data.
<b>Respiratory Equipment (Specify Type):</b>	For OSHA controlled work place and other regular users. Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors. A dust mask does not provide protection against vapors.			
<b>Eye Protection:</b>	Safety glasses, goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.			
<b>Protective Gloves:</b>	Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product.			
<b>Other Protective Clothing:</b>	Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure. Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.			
<b>Engineering Controls (Ventilation etc.):</b>	Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, or eye-watering - Stop - ventilation is inadequate. Leave area immediately.			
<b>Work/Hygienic/Maintenance Practices:</b>	A source of clean water should be available in the work area for flushing eyes and skin. Do not eat, drink, or smoke in the work area. Wash hands thoroughly after use.			

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical States:</b>	[ ] Gas    [X] Liquid    [ ] Solid
<b>Appearance and Odor:</b>	Water White / Free and Clear
<b>Melting Point:</b>	No data.
<b>Boiling Point:</b>	318.00 F - 385.00 F
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	> 100.00 F
<b>Explosive Limits:</b>	LEL: 0.5                      UEL: 6
<b>Specific Gravity (Water = 1):</b>	0.78
<b>Vapor Pressure (vs. Air or mm Hg):</b>	0.3 MM HG at 68.0 F
<b>Vapor Density (vs. Air = 1):</b>	5 Air = 1
<b>Evaporation Rate:</b>	No data.
<b>Solubility in Water:</b>	No data.
<b>Solubility Notes:</b>	Very slightly soluble in cold water.
<b>Percent Volatile:</b>	100.0 % by weight.
<b>VOC / Volume:</b>	778.0000 G/L

# SAFETY DATA SHEET

## Klean Strip Paint Thinner

Page: 6

Revision: 05/24/2017  
Supersedes Revision: 11/16/2015

### 10. STABILITY AND REACTIVITY

**Stability:** Unstable [ ] Stable [ X ]

**Conditions To Avoid -** No data available.

**Instability:**

**Incompatibility - Materials To Avoid:** Incompatible with strong acids, alkalies, and oxidizers such as liquid chlorine and oxygen.

**Hazardous Decomposition or Byproducts:** Decomposition may produce carbon monoxide and carbon dioxide.

**Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]

**Conditions To Avoid -** No data available.

**Hazardous Reactions:**

### 11. TOXICOLOGICAL INFORMATION

**Toxicological Information:** Refer to section 2 for acute and chronic effects.

CAS# 25551-13-7:

Standard Draize Test, Skin, Species: Rabbit, 500.0 MG, 24 H, Moderate.

Result:

Kidney, Ureter, Bladder: Changes in liver weight.

Endocrine: Changes in thymus weight.

Immunological Including Allergic: Decreased immune response.

- "Sbornik Vysledku Toxilogickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,24, 1972

Standard Draize Test, Eyes, Species: Rabbit, 500.0 MG, 24 H, Mild.

Result:

Kidney, Ureter, Bladder: Changes in liver weight.

Kidney, Ureter, Bladder: Changes in bladder weight.

Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

- "Sbornik Vysledku Toxilogickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,24, 1972

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
8052-41-3	Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	n.a.	n.a.	n.a.	n.a.
25551-13-7	Benzene, Trimethyl-	n.a.	n.a.	n.a.	n.a.

### 12. ECOLOGICAL INFORMATION

No data available.

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose in accordance with federal, state, and local regulations.

# SAFETY DATA SHEET

## Klean Strip Paint Thinner

Page: 7

Revision: 05/24/2017  
Supersedes Revision: 11/16/2015

### 14. TRANSPORT INFORMATION

#### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Paint Related Material, Exempt Combustible Liquid per 49 CFR 173.150(f)**DOT Hazard Class:****UN/NA Number:**

#### Additional Transport Information:

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

### 15. REGULATORY INFORMATION

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
8052-41-3	Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	No	No	No
25551-13-7	Benzene, Trimethyl-	No	No	No

**This material meets the EPA** ☒ Yes ☐ No **Acute (immediate) Health Hazard**  
**'Hazard Categories' defined** ☒ Yes ☐ No **Chronic (delayed) Health Hazard**  
**for SARA Title III Sections** ☒ Yes ☐ No **Fire Hazard**  
**311/312 as indicated:** ☐ Yes ☒ No **Sudden Release of Pressure Hazard**  
☐ Yes ☒ No **Reactive Hazard**

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
8052-41-3	Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
25551-13-7	Benzene, Trimethyl-	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

#### Regulatory Information:

This product is regulated by the United States Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS). The product label also includes other important information, including directions for use, and should always be read in its entirety prior to using the product.

### 16. OTHER INFORMATION

**Revision Date:** 05/24/2017**Preparer Name:** W.M. Barr and Company, Inc. (901)775-0100**Additional Information About** No data available.

#### This Product:

#### Company Policy or

#### Disclaimer:

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.



## Product Information Sheet

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200.

This standard must be consulted for specific requirements.

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Lithium-ion Batteries - Rechargeable

**Drawing Number:** 58-97-0500

**Issue Date:** April 2016

**Supersedes Date:** July 2015

**Milwaukee Electric Tool Corporation**

13135 West Lisbon Road

Brookfield, Wisconsin USA 53005-2550

www.milwaukeeetool.com

**Company Phone Number:** 262-781-3600 or

1-800-729-3878

**Emergency Contact Number:** 1-800-424-9300

**Chemtrec:** United States only

**For International:** +1-703-741-5970

### SECTION 2: HAZARDS IDENTIFICATION

Health	Environmental	Physical
<b>Eye Irritation:</b> No classified hazards	<b>Acute Toxicity:</b> No classified hazards	<b>Flammable liquid:</b> No classified hazards
<b>Skin Irritation:</b> No classified hazards	<b>Chronic Toxicity:</b> No classified hazards	
<b>Acute Toxicity, Oral:</b> No classified hazards		
<b>Acute Toxicity, Inhalation:</b> No classified hazards		

**GHS Label**

No applicable labeling

Hazard Statements	Precautionary Statements
No exposure during routine handling of product	

**CLASSIFIED HAZARDS**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200. This SDS contains valuable information for the safe handling and proper use of this product. Save this SDS for future reference.

**OTHER HAZARDS**

**Flammable:**

Organic components will burn if cell is incinerated. Combustion of cell contents may cause evolution of Hydrogen Fluoride.

**Potential Health Effects:**

Fluoride interferes with nerve impulse conduction causing severe pain or absence of sensations

**WARNING:**

No exposure during routine handling of product. Hydrofluoric Acid exposure during firefighting: This information is given for the use of professional fire fighters responding to a warehouse fire where fire from other materials may incinerate batteries. This section is provided solely in case of exposure, during firefighting, to the combustion by-products.

---

## SECTION 3: COMPOSITION /INFORMATION OF INGREDIENTS

---

Chemical Name	CAS #	Concentration
Aluminum Foil	7429-90-5	0.1 - 10
Biphenyl (BP)	92-52-4	0.1 - 0.3
Copper Foil	7440-50-8	0.1 - 10
Linear & Cyclic Carbonate solvents	N/A	0 - 17
Graphite Powder/Carbon	7440-44-0	10 - 30
Metal Oxide or other Electrolyte (proprietary)	Confidential	10 - 50
Lithium Hexafluorophosphate (LiPF <sub>6</sub> )	21324-40-3	0 - 5
Polyvinylidene Flouride (PVDF)	24937-79-9	0.1 - 5
Styrene Butadiene Rubber (SBR)	N/A	<5
Aluminum, Steel, Nickel and other inert materials	N/A	Remainder

---

## SECTION 4: FIRST AID MEASURES

---

No exposure during routine handling of product. Risk of exposure occurs only if the battery is mechanically or electrically abused.

No effect under routine handling and use to eyes, skin or if inhaled. Ingestion is not likely, given the physical size and state of the cell. If swallowed, seek medical attention immediately.

If exposure to internal materials within cell due to damaged outer casing the following actions are recommended:

### EYE CONTACT:

Flush with water for 15 minutes without rubbing and immediately seek medical attention.

### SKIN CONTACT:

Wash area immediately with soap and water. If irritation continues see medical attention.

### INHALATION:

Leave area immediately and move to fresh air and seek medical attention.

### INGESTION:

If swallowed, contact POISON CONTROL CENTER immediately.

---

## SECTION 5: FIRE FIGHTING MEASURES

---

### NFPA 704 Hazard Class



### HMIS



0 (Minimal)  
1 (Slight)  
2 (Moderate)  
3 (Serious)  
4 (Severe)

### SUITABLE EXTINGUISHING MEDIA:

Water spray, carbon dioxide, dry chemical powder or appropriate foam. Use agent appropriate for surrounding materials.

### UNSUITABLE EXTINGUISHING MEDIA:

None.

**PRODUCTS OF COMBUSTION:**

Organic components will burn if incinerated. Combustion of cell contents may cause evolution of Hydrogen Fluoride. In case of fire in an adjacent area, use water, CO<sub>2</sub>, or dry chemical extinguishers if cells are packed in their original containers since the fuel of the fire is basically paper products.

**PROTECTION OF FIREFIGHTERS:**

Hydrofluoric Acid exposure during firefighting: This information is given for the use of professional fire fighters responding to a warehouse fire where fire from other materials may incinerate batteries. This section is provided solely in case of exposure, during firefighting, to the combustion by-products.

---

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

---

**PERSONAL PRECAUTIONS:**

Use standard industrial clothing in normal use. If handling large containers of cells wear steel-toed footwear.

**ENVIRONMENTAL PRECAUTIONS:**

No special precautions necessary.

**METHODS FOR CONTAINMENT:**

Transport container outdoors. Hold burned cells and fire cleanup solids for disposal as potential hazardous waste. Unburned cells are not hazardous waste. A fire with over 100 kg of cells burnt will likely require reporting to environmental officials. Always consult and obey all international, federal and local environmental laws.

**METHODS FOR CLEAN-UP:**

No data available

**OTHER INFORMATION:**

No data available

---

**SECTION 7: HANDLING AND STORAGE**

---

**HANDLING:**

Use only approved charging equipment. Do not disassemble battery or battery pack. Do not puncture, crush or dispose of in fire.

**STORAGE:**

Store in a cool, dry place away from sparks and flame. Keep below 125°C. Keep above -60°C. Charge between 0°C and 45°C.

---

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

---

Chemical Name	OSHA PEL	ACGIH TLV	California Prop 65 Reg. Y/N	IARC/NTP Y/N
Aluminum Foil	TWA 5mg/m <sup>3</sup> *	TWA 5mg/m <sup>3</sup> *	N	N
Biphenyl (BP)	NA	NA	N	N
Copper Foil	NA	NA	N	N
Linear & Cyclic Carbonate solvents	NA	NA	N	N
Graphite Powder/Carbon	NA	NA	N	N
Metal Oxide or other Electrolyte (proprietary)	NA	NA	N	N
Lithium Hexafluorophosphate (LiPF <sub>6</sub> )	NA	NA	N	N

Polyvinylidene Fluoride (PVDF)	NA	NA	N	N
Styrene Butadiene Rubber (SBR)	NA	NA	N	N
Aluminum, Steel, Nickel and other inert materials	NA	NA	N	N

**EYE PROTECTION:**

Not necessary under conditions of normal use

**SKIN PROTECTION:**

Not necessary under conditions of normal use

**RESPIRATORY PROTECTION:**

Not necessary under conditions of normal use

**ENGINEERING CONTROLS:**

Not necessary under conditions of normal use

**GENERAL HYGIENE CONSIDERATIONS:**

Not necessary under conditions of normal use

**EXPOSURE GUIDELINES:**

Not necessary under conditions of normal use

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

---

Data represent typical values and are not intended to be specifications. NA=Not Applicable; ND=Not Determined

<b>Physical state:</b> ..... Solid	<b>Viscosity:</b> ..... NA
<b>Colour:</b> ..... NA	<b>Upper Explosive Limits (vol % in air):</b> ..... NA
<b>Odor:</b> ..... Odorless	<b>Lower Explosive Limits (vol % in air):</b> ..... NA
<b>Odor Threshold:</b> ..... NA	<b>Vapor pressure:</b> ..... NA
<b>pH:</b> ..... NA	<b>Vapor density:</b> ..... NA
<b>Melting/Freezing Point:</b> ..... NA	<b>Relative density:</b> ..... NA
<b>VOC Content:</b> ..... NA	<b>Solubility:</b> ..... NA
<b>Boiling Point:</b> ..... NA	<b>Partition Coefficient:</b> ..... NA
<b>Flash Point:</b> ..... NA	<b>Auto-ignition Temperature:</b> ..... NA
<b>Evaporation Rate:</b> ..... NA	<b>Decomposition Temperature:</b> ..... NA
<b>Specific Gravity:</b> ..... NA	<b>Flammability (solid, gas):</b> ..... Organic components will burn if cell is incinerated

---

## SECTION 10: STABILITY AND REACTIVITY

---

**INCOMPATIBLE MATERIALS:**

Water, heat and strong acids.

**DECOMPOSITION PRODUCTS MAY INCLUDE:**

Hydrogen Fluoride, Phosphorus Oxides, Carbon Monoxide, Carbon Dioxide, Lithium Hydroxide, Manganese Oxides, Aluminum Oxide, possible fluoro-compounds, Carbon soot.

**CONDITIONS TO AVOID:**

Do not crush, puncture, incinerate, immerse in water or heat over 212°F (100°C). Steel casing slowly dissolves in strong mineral acids.



**POLYMERIZATION:**

Hazardous polymerization will not occur. Spontaneous decomposition will not occur at normal temperature.

**CHEMICAL STABILITY:**

This product is stable.

**REACTIVITY:**

Hazardous polymerization will not occur. Spontaneous decomposition will not occur at normal temperature.

---

**SECTION 11: TOXICOLOGY INFORMATION**

---

**LIKELY ROUTES OF EXPOSURE:     Inhalation, Eye and Skin contact**

Eye contact, skin contact, skin absorption, inhalation only if burned. Hydrofluoric acid is extremely corrosive. Contact with hydrogen fluoride fumes is to be avoided. Permissible exposure limit is 3ppm. In case of contact with hydrogen fluoride fumes, immediately leave the area and seek first aid and emergency medical attention. Symptoms may have delayed onset. Fluoride ions penetrate skin readily causing destruction of deep tissue layers even bone. Fluoride interferes with nerve impulse conduction causing severe pain or absence of sensations. Immediately flush eyes or skin with water for at least 20 minutes to neutralize the acidity and remove some fluoride. Remove and destroy all contaminated clothing and permeable personal possessions. Before re-use, impermeable possessions should be soaked in benzalkonium chloride after washing. Following flushing of the affected areas, an iced aqueous solution of benzalkonium chloride or 2.5% calcium gluconate gel should be applied to react with the fluoride ion. Compresses and wraps may be used for areas where immersion is not practical. Medicated dressing should be changed every 2 minutes. Exposure to hydrofluoric acid fumes sufficient to cause pain requires immediate hospitalization for monitoring for pulmonary edema.

**ACUTE SYMPTOMS AND EFFECTS:**

<b>Inhalation:</b>	No further toxicological data known
<b>Eye contact:</b>	No further toxicological data known
<b>Skin contact:</b>	No further toxicological data known
<b>Ingestion:</b>	No further toxicological data known

**OTHER:**

No further data known.

---

**SECTION 12: ECOLOGICAL INFORMATION**

---

**ECOTOXICOLOGICAL INFORMATION:**

None in routine handling of product.

**TOXICITY:**

No data available

**PERSISTENCE AND DEGRADABILITY (BIOPERSISTENCY & BIODEGRADABILITY):**

None in routine handling of product.

**POTENTIAL OF BIOACCUMULATION:**

None in routine handling of product.

**MOBILITY IN SOIL:**

None in routine handling of product.

**OTHER ADVERSE EFFECTS:**

No data available

---

## SECTION 13: DISPOSAL CONSIDERATIONS

---

### DISPOSAL:

Dispose in accordance with appropriate regulations. Always consult and obey all international, federal, provincial/state and local hazardous waste disposal laws. Some jurisdictions require recycling of this spent product. Battery recycling is encouraged. Lithium ion batteries are safe for disposal in the normal municipal waste stream since they are not defined by the federal government as hazardous waste. However, Lithium ion batteries are recyclable.

This product does not contain mercury, cadmium or Lithium (metal).

**DO NOT INCINERATE** or subject battery cells to temperatures in excess of 212°F (100°C).

---

## SECTION 14: TRANSPORTATION INFORMATION

---

### U.S. DOT HAZARDOUS MATERIAL REGULATIONS (RE: GROUND TRANSPORT)

#### Proper Shipping Description:

UN3480 Lithium-ion batteries; UN3481 Lithium-ion batteries packed with or contained in equipment; Class 9.

Milwaukee Lithium-ion batteries are to be shipped in compliance with relevant requirements of HMR “49 CFR173.185”.

### CANADA TRANSPORT DANGEROUS GOODS (RE: GROUND TRANSPORT)

#### Proper Shipping Description:

UN3480 Lithium-ion batteries; UN3481 Lithium-ion batteries packed with or contained in equipment; Class 9.

Milwaukee Lithium-ion batteries are to be shipped in compliance with relevant requirements of TDG “Part 2” (Section 2.43), or TDG “Schedule 2” (Special Provision 34), as applicable.

### INTERNATIONAL DANGEROUS GOODS REGULATIONS (RE: AIR, SEA, GROUND TRANSPORT)

#### Proper Shipping Description:

UN3480 Lithium-ion batteries; UN3481 Lithium-ion batteries packed with or contained in equipment; Class 9.

Milwaukee Lithium-ion batteries are to be shipped in compliance with relevant requirements of the following DG Regulations:

- ICAO Technical Instructions or IATA Dangerous Goods Regulations (57<sup>th</sup> Edition): Packing Instructions 965; 966; 967 (Section I, or Section II, as applicable).
- IMDG Code: Packing Instruction P903, or Special Provision 188, as applicable.
- UN Model Regulations on the Transport of Dangerous Goods: Packing Instruction P903, or Special Provision 188, as applicable.
- UN European Agreements (ADR/RID/ADN): Packing Instruction P903, or Special Provision 188, as applicable.
- Australian Dangerous Goods (ADG): Packing Instruction P903, or Special Provision 188, as applicable.

**IMPORTANT:** The proper classification, packaging, labeling, marking, and documentation requirements for shipping Lithium-ion batteries is dependent upon whether the particular batteries are:

- a.) Rated at 100 Watt-hours (Wh) or less; or
- b.) Rated at greater than 100Wh.

Generally, Lithium-ion batteries rated 100Wh or less are “excepted” from certain Class 9 DG requirements. Always check compliance of Lithium-ion battery consignments against the current regulations governing the chosen mode of transport. When in doubt, contact the carrier or other trained Dangerous Goods professional to confirm acceptability.

### UN 38.3 BATTERY TRANSPORTATION TESTING:

Milwaukee rechargeable Lithium-ion batteries listed in Section 1 have passed the relevant transportation test requirements as described in the *UN Manual of Tests and Criteria*, Part III, section 38.3.

UN 38.3 Test Reports are maintained on file at the corporate headquarters of Milwaukee Electric Tool Corporation located at 13135 W. Lisbon Rd., Brookfield, WI, USA 53005.

---

## SECTION 15: REGULATORY INFORMATION

---

### GLOBAL INVENTORIES

<b>TSCA: United States</b>	See Sec. 14. Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
<b>DSL: Canada</b>	See Sec. 14. Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
<b>ECL: Korea</b>	Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
<b>PICCS: Philippines</b>	Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
<b>ENCS: Japan</b>	Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
<b>AICS: Australia</b>	Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
<b>IECS: China</b>	Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
<b>EINECS: European Union</b>	Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.

### SARA 313 Information:

SARA Title III Section 313: This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372.

### California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

### WHMIS: Canadian Workplace

This product does not contain regulated levels of any toxic chemical subject to the reporting requirements

---

## SECTION 16: OTHER INFORMATION

---

### ABBREVIATIONS:

<b>TSCA</b> .....	Toxic Substance Control Act
<b>ICAO</b> .....	International Civil Aviation Organization
<b>IMDG</b> .....	International Maritime Dangerous
<b>OSHA</b> .....	Occupational Safety and Health
<b>IARC/NTP</b> .....	International Agency for Research on Cancer/National Toxicology Program
<b>SARA</b> .....	Superfund Amendments and Reauthorization Act of 1986
<b>ACGIH</b> .....	American Conference of Governmental Industrial Hygienists

**NIOSH/MSHA** ..... National Institute for Occupational Safety Health/  
Mine Safety and Health Administration  
**WHMIS** ..... Workplace Hazardous Materials Information System

**Prepared by:** Milwaukee Electric Tool Corporation

The batteries referenced herein are considered exempt articles and are not subject to the OSHA Hazard Communication Standard; therefore a SDS is not required. This sheet is being provided as a service to our customers.

The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. **MILWAUKEE ELECTRIC TOOL CORPORATION** makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereto.