

# SAFETY DATA SHEET

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## SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

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**Product ID:** 494805  
**Product Name:** MARKONEX GEL  
**Revision Date:** Oct 09, 2018 **Date Printed:** Oct 09, 2018  
**Version:** 2.0 **Supersedes Date:** Nov 15, 2016  
**Manufacturer's Name:** Zenex International  
**Address:** 1 Zenex Circle Cleveland, OH, US, 44146  
**Emergency Phone:** 1-800-535-5053  
**Information Phone Number:** (440)-232-4155  
**Fax:**  
**Product/Recommended Uses:** Gel Vandal Remover

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification

Aerosols Category 1  
Aspiration Hazard - Category 1  
Eye Irritation - Category 2A  
Gases Under Pressure Liquefied Gas  
Reproductive Toxicity - Category 2 (The Unborn Child)  
Skin Irritation - Category 2  
Specific Target Organ Toxicity - Repeated Exposure - Category 2  
Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3

### Pictograms



### Signal Word

Danger

### Hazardous Statements - Physical

H222 - Extremely flammable aerosol  
H280 - Contains gas under pressure; may explode if heated

### Hazardous Statements - Health

H304 - May be fatal if swallowed and enters airways  
H319 - Causes serious eye irritation  
H361 - Suspected of damaging the unborn child.  
H315 - Causes skin irritation  
H373 - May cause damage to organs through prolonged or repeated exposure.

H336 - May cause drowsiness or dizziness

#### **Precautionary Statements - General**

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

#### **Precautionary Statements - Prevention**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 - Do not spray on an open flame or other ignition source.

P251 - Do not pierce or burn, even after use.

P264 - Wash hands thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection, and face protection.

P201 - Obtain special instructions before use.

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

P260 - Do not breathe mist, vapors, or spray.

P271 - Use only outdoors or in a well-ventilated area.

#### **Precautionary Statements - Response**

P308 + P313 - IF exposed or concerned: Get medical attention.

P314 - Get medical attention if you feel unwell.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical attention.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 - If skin irritation occurs: Get medical attention.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

#### **Precautionary Statements - Storage**

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P405 - Store locked up.

P403 - Store in a well-ventilated place.

#### **Precautionary Statements - Disposal**

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

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### **SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS**

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<b>CAS</b>	<b>Chemical Name</b>	<b>% By Weight</b>
0000108-88-3	TOLUENE	20% - 40%
0000067-64-1	ACETONE	10% - 20%
0068920-66-1	Alcohols, C16-18 and C18-unsatd., ethoxylated	2.5% - 10%
0000106-97-8	BUTANE	2.5% - 10%
0000123-42-2	DIACETONE ALCOHOL	2.5% - 10%
0064742-47-8	ISOPARAFFINIC PETROLEUM DISTILLATE	2.5% - 10%

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0000064-17-5

ETHYL ALCOHOL

2.5% - 10%

0000074-98-6

PROPANE

2.5% - 10%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

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## SECTION 4) FIRST-AID MEASURES

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### Inhalation

Remove to fresh air. Administer oxygen if needed. Apply artificial respiration if breathing has stopped. Get medical attention.

### Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

### Skin Contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

### Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

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## SECTION 5) FIRE-FIGHTING MEASURES

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### Suitable Extinguishing Media

Alcohol resistant foam. Powder. Carbon dioxide (CO<sub>2</sub>).

### Unsuitable Extinguishing Media

Do not use water jet as an extinguisher, as this will spread the fire.

### Specific Hazards in Case of Fire

Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.

### Fire-Fighting Procedures

Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat.

### Special Protective Actions

Wear goggles and use a self-contained breathing apparatus.

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## SECTION 6) ACCIDENTAL RELEASE MEASURES

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### Emergency Procedure

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Recommended Equipment

Wear appropriate protective equipment (see Section 8).

### Personal Precautions

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Use explosion proof equipment. Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

## Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

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## SECTION 7) HANDLING AND STORAGE

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### General

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe mist, spray, or vapor. Avoid contact with eyes, skin, and clothing. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### Ventilation Requirements

Use in a well-ventilated place.

### Storage Room Requirements

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

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## SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

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### Eye Protection

Safety glasses with side shields should be used if indicated. Eye wash and safety showers in the workplace are recommended.

### Skin Protection

Use solvent-resistant protective gloves for prolonged or repeated contact.

### Respiratory Protection

Avoid breathing vapors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination of liquid particles and vapor. In confined areas, use an approved air line respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

### Appropriate Engineering Controls

Ventilation should be sufficient to prevent inhalation of any vapors.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
ACETONE	1000	2400			1			250	590			
BUTANE								800	1900			
DIACETONE ALCOHOL	50	240			1			50	240			
ETHYL ALCOHOL	1000	1900			1			1000	1900			
ISOPARAFFINIC PETROLEUM DISTILLATE	500	2000			1							
PROPANE	1000	1800			1			1000	1800			

TOLUENE	200 (a)/ 300 ceiling	0.2	500ppm /10 minutes (a)	1.2	100	375	150	560
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Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
ACETONE	250		500	
BUTANE	1000			
DIACETONE ALCOHOL	50	238		
ETHYL ALCOHOL			1000	
ISOPARAFFINIC PETROLEUM DISTILLATE				
PROPANE	See Appendix F: Minimal Oxygen Content			
TOLUENE	20	0.2		

(C) - Ceiling limit

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## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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### Physical and Chemical Properties

Density	6.90900 lb/gal
Density VOC	3.35086 lb/gal
% VOC	48.50000%

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Appearance	Gas, Aerosol
Odor Threshold	N.A.
Odor Description	N.A.
pH	N.A.
Water Solubility	N.A.
Flammability	Flash point below 73°F/23°C
Flash Point Symbol	N.A.
Flash Point	-156°F (-104.4°C) Propellant
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Pressure	40 psig @20°C estimated
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	180.6°F (82.55°C) estimated
High Boiling Point	N.A.
Heat of combustion (NFPA 30B)	22.14 kJ/g estimated
Auto Ignition Temp	885.38°F (474.1°C) estimated
Evaporation Rate	N.A.

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## SECTION 10) STABILITY AND REACTIVITY

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### Stability

The product is stable under normal storage conditions.

### Conditions to Avoid

Keep away from heat, sparks, extreme temperature, flame, other sources of ignition and incompatible materials.

### Incompatible Materials

Strong oxidizing agents. Nitrates. Fluorine. Chlorine.

### Hazardous Reactions/Polymerization

None known.

### Hazardous Decomposition Products

None known.

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Skin Corrosion/Irritation

Causes skin irritation

### Classification of the substance or mixture

There is no ecological data available for this product.

### Serious Eye Damage/Irritation

Causes serious eye irritation

### Carcinogenicity

No data available

### Germ Cell Mutagenicity

No data available

### Reproductive Toxicity

Suspected of damaging the unborn child.

### Respiratory/Skin Sensitization

No data available

### Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

### Specific Target Organ Toxicity - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure.

### Aspiration Hazard

May be fatal if swallowed and enters airways

### Acute Toxicity

No data available

### Potential Health Effects - Miscellaneous

0000064-17-5 ETHYL ALCOHOL

The following medical conditions may be aggravated by exposure: liver disease. Tests in some laboratory animals indicate this compound may have embryotoxic activity. Tests in animals demonstrate reproductive toxicity. Ingestion may cause any of the following: stupor (central nervous system depression), gastrointestinal irritation. If absorbed through the skin, may be: harmful.

0000067-64-1 ACETONE

The following medical conditions may be aggravated by exposure: lung disease, eye disorders, skin disorders. Overexposure may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, respiratory system, skin.

0000108-88-3 TOLUENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heart beats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

0000123-42-2 DIACETONE ALCOHOL

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: cardiovascular system, central nervous system, eyes, respiratory system, skin, red blood cells. Overexposure may cause damage to any of the following organs/systems: kidneys, liver, red blood cells. Tests for mutagenic activity in bacterial or mammalian cell cultures have been inconclusive.

### Chronic Exposure

0000108-88-3 TOLUENE

TERATOGENIC EFFECTS:Toluene has been Classified as POSSIBLE for humans.

0000064-17-5 ETHYL ALCOHOL

LC50 (mouse): Approximately 21000 ppm (4-hour exposure); cited as 39 g/m3 (4-hour exposure) (1, unconfirmed)

LD50 (oral, rat): 7060 mg/kg (41); 10600 mg/kg (41); 13660 mg/kg (37)

LD50 (oral, mouse): 3450 mg/kg (1, unconfirmed)

LD50 (oral, guinea pig): 5560 mg/kg (37)

0000108-88-3 TOLUENE

LC50 (rat): 8800 ppm (4-hour exposure) (2)

LC50 (rat): 6000 ppm (6-hour exposure) (3)

LD50 (oral, rat): 2600 to 7500 mg/kg (3,5,11,17)

LD50 (oral, neonatal rat): less than 870 mg/kg (3)

LD50 (dermal, rabbit): 12,225 mg/kg (reported as 14.1 ml/kg) (1)

0000067-64-1 ACETONE

LC50 (male rat): 30000 ppm (4-hour exposure); cited as 71000 mg/m3 (4-hour exposure) (29)

LC50 (male mouse): 18600 ppm (4-hour exposure); cited as 44000 mg/m3 (4-hour exposure) (29)

LD50 (oral, female rat): 5800 mg/kg (24)

LD50 (oral, mature rat): 6700 mg/kg (cited as 8.5 mL/kg) (31)

LD50 (oral, newborn rat): 1750 mg/kg (cited as 2.2 mL/kg) (31)

LD50 (oral, mouse): 3000 mg/kg (32,unconfirmed)

LD50 (dermal, rabbit): Greater than 16000 mg/kg cited as 20 mL/kg) (30)

0000106-97-8 BUTANE

LC50 (mouse): 202000 ppm (481000 mg/m3) (4-hour exposure); cited as 680 mg/L (2-hour exposure) (9)

LC50 (rat): 276000 ppm (658000 mg/m3) (4-hour exposure); cited as 658 mg/L (4-hour exposure) (9)

0000123-42-2 DIACETONE ALCOHOL

LD50 (oral, rat): 4000 mg/kg (12)

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## SECTION 12) ECOLOGICAL INFORMATION

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### Toxicity

No data available

### Persistence and Degradability

0000067-64-1 ACETONE

91% readily biodegradable, Method: OECD Test Guideline 301B

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

Expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

### Bio-Accumulative Potential

0000067-64-1 ACETONE Does not bioaccumulate

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE Contains constituents with the potential to bio accumulate.

**Partition coefficient n-octanol / water (log Kow)**

Acetone	-0.24
Butane	2.89
Diacetone Alcohol	-0.098
Ethyl Alcohol	-0.31
Propane	2.36
Toluene	2.73

**Mobility in Soil**

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

Floats on water. Contains volatile constituents. Evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater.

**Other Adverse Effects**

No data available.

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**SECTION 13) DISPOSAL CONSIDERATIONS**

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**Waste Disposal**

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. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

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**SECTION 14) TRANSPORT INFORMATION**

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**U.S. DOT Information**

UN number: UN1950

Proper shipping name: Aerosols, flammable, (each not exceeding 1 L capacity) (LTD QTY)

Hazard class: 2.1

Packaging group: No Data Available

Hazardous substance (RQ): No Data Available

Toxic-Inhalation Hazard: No Data Available

Marine Pollutant: No Data Available

Note / Special Provision: No Data Available

**IMDG Information**

UN number: UN1950

Proper shipping name: Aerosols, flammable, (each not exceeding 1 L capacity) (LTD QTY)

Hazard class: 2.1

Packaging group: No Data Available

Marine Pollutant: No Data Available

Note / Special Provision: No Data Available

**IATA Information**

UN number: UN1950

Hazard class: 2.1

Packaging group: No Data Available

Proper shipping name: Aerosols, flammable, (each not exceeding 1 L capacity) (N/A)

Note / Special Provision: No Data Available



## SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000108-88-3	TOLUENE	20% - 40%	SARA313, CERCLA,HAPS,SARA312,VOC,TSCA,RCRA,ACGIH,CA_Prop65 - California Proposition 65,OSHA
0000067-64-1	ACETONE	10% - 20%	CERCLA,SARA312,TSCA,RCRA,ACGIH,OSHA
0068920-66-1	Alcohols, C16-18 and C18-unsatd., ethoxylated	2.5% - 10%	SARA312,TSCA
0000106-97-8	BUTANE	2.5% - 10%	SARA312,VOC,TSCA,ACGIH
0000123-42-2	DIACETONE ALCOHOL	2.5% - 10%	SARA312,VOC,TSCA,ACGIH,OSHA
0064742-47-8	ISOPARAFFINIC PETROLEUM DISTILLATE	2.5% - 10%	SARA312,VOC,TSCA,OSHA
0000064-17-5	ETHYL ALCOHOL	2.5% - 10%	SARA312,VOC,TSCA,ACGIH,OSHA
0000074-98-6	PROPANE	2.5% - 10%	SARA312,VOC,TSCA,ACGIH,OSHA

## SECTION 16) OTHER INFORMATION

### Glossary

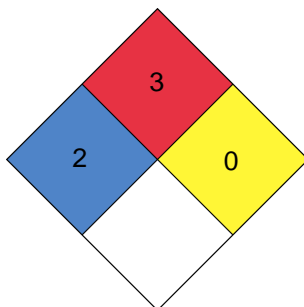
\* There are points of differences between OSHA GHS and UN GHS. In 90% of the categories, they can be used interchangeably, but for the Skin Corrosion/Irritant Category and the Specific Target Organ Toxicity (Single and Repeated Exposure) Categories. In these cases, our system will say UN GHS.

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

### HMIS

Health	/ 2
FLAMMABILITY	3
Physical Hazard	0
Personal Protection	B

### NFPA



(\* ) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

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