G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME ------> Hexylene Glycol all Grades

PRODUCT NUMBER(S)-----> 175500, 175540, 175550, 175700

TRADE NAMES AND SYNONYMS--> 2-Methyl-2,4-pentanediol

CAS-No: 107-41-5

CHEMICAL FAMILY: Diol

1.2 <u>RELAVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND</u> USES ADVISED AGAINST: Identified uses:

Industrial uses: Use in Lubricants, Use as binder and release agent, Use in functional fluids, Use as a fuel, Use in Laboratory, Use in water treatment, Uses in cleaning agent-Softener, Cosmetic Product component, Uses in coatings, Anti-freezing agent

USES ADVISED AGAINST: Not intended for the general public

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: G.J. CHEMICAL CO., INC. Address: 40 VERONICA AVENUE SOMERSET, NJ 08873

Telephone: 1-973-589-1450 Fax: 1-973-589-3072

1.4 Emergency Telephone Number Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS) Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319

2.2 GHS Label elements, including precautionary statements



Signal word: Warning

Hazard statement(s) H315 Causes skin irritation. H319 Causes serious eye irritation.

Precautionary statement(s) Prevention: P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ eye protection/ face protection. Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P321 Specific treatment (see supplemental first aid instructions on this label). P332 + P313 If skin irritation occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by Rang	WT. je	CLASSIFICATION
2-methylpentane-2.4-diol	107-41-5	 99	 Skir	n irritation (Category 2), H315
EC-	No.203-489-0		Eve	Irritation (Category 2), H319
Index-No.	603-053-00-3	i	i î	
RegNo. 01-2119539	582-35-XXXX	İ	i	
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3.2 MIXTURE: Not applicable

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

INHALATION: Hexylene glycol

**<u>FIRST AID- Remove from exposure area to fresh air</u> <u>immediately. If breathing has stopped, perform artificial</u> <u>respiration. Use oxygen if necessary. Keep person warm and at</u> <u>rest. Treat symptomatically and supportively. Get medical</u> <u>attention immediately.</u>

SKIN CONTACT: Hexylene glycol

**<u>FIRST AID- Remove contaminated clothing and shoes</u> <u>immediately. Wash affected area with soap or mild detergent and</u> <u>large amounts or water until no evidence of chemical remains</u> (approximately 15-20 minutes). Get medical attention <u>immediately.</u>

EYE CONTACT: Hexylene glycol

**<u>FIRST AID- Wash eyes immediately with large amounts of</u> water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Consult a physician if irritation persists.

INGESTION: Hexylene glycol

**FIRST AID- Do not induce vomiting. Never give anything by mouth to an unconscious person. Have patient drink several glasses of water. Consult a physician or poison control center, treat symptomatically.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED: EYE: Moderate to severe irritation; Symptoms are eye irritation, burning sensation, pain, watering and/or change of vision.

SKIN: Mildly irritating; Symptoms are drying, cracking or inflammation. INHALATION: Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma. Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty.

INGESTION: May be harmful if swallowed. Symptoms may include Nausea, vomiting, loss of appetite, gastrointestinal irritation and/or diarrhea. May cause inflammation of mouth, throat, esophagus and/or stomach. May cause central nervous system depression.

CHRONIC: Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose.

TARGET ORGAN EFFECTS: Overexposure may cause; CNS Depression, Irritation of the Respiratory Tract, Digestive tract and locally at site of exposure. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin contact may aggravate chronic disease of the respiratory tract and existing dermatitis.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED. Not available.

5. FIRE FIGHTING MEASURES

Flash Point: 94°C (201°F)LEL %:1.3(V)Auto-ignition Temp: 205°C (583°F)UEL %:7.4(V)UNIFORM FIRE CODE: Combustible Liquid: III-B

5.1 EXTINGUISHING MEDIA:

Suitable extinguishing media: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Keep containers tightly closed. Isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat.

This material may produce a floating fire hazard in extreme fire conditions. Sensitivity to Mechanical Impact: No

Sensitivity to Static Discharge: No

HAZARDOUS COMBUSTION PRODUCTS: Burning can produce Carbon Monoxide and Carbon Dioxide. Carbon Monoxide is highly toxic if inhaled.

5.3 <u>ADVICE FOR FIREFIGHTERS</u>: Shut off source. Water spray should be used to cool fir-exposed structures and vessels. Water spray can be used to reduce the intensity of flames and to dilute spills to a non-flammable mixture. Oxidizing chemicals may accelerate the burning rate in a fire situation. Wear NIOSH approved self-contained breathing apparatus and protective clothing.

Thoroughly decontaminate bunker gear and other fire-fighting equipment before re-use.

6. ACCIDENTAL RELEASE MEASURES

6.1 <u>PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY</u> <u>PROCEDURES</u>:

6.1.1 Protective equipment: Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.1.2 For emergency responders: Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people

6.2 ENVIRONMENTAL PRECAUTIONS:

Keep out of water sources and sewers, notify authorities if liquid enters sewers or public waters.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

For containment: Shut off valves, contain released material, pump into suitable containers.

<u>Methods for cleaning up</u>: Use explosion proof equipment. For small spills add non-flammable absorbent such as clay or silica in spill area. For large spills use foam on spill to minimize vapors clean up by vacuuming then using nonflammable absorbent.

Methods for Disposal:

Remove contaminated soil to remove contaminated trace residues. Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace reside. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations. Keep all nonessential people away.

6.4 <u>REFERENCE TO OTHER SECTIONS</u>: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 <u>PRECAUTIONS FOR SAFE HANDLING:</u> Liquid evaporates and forms vapor (fumes), which can catch fire and burn. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not take internally. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking

tools to open or close containers. Hygiene measures: Wash hands thoroughly after handling.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Do not store above 120°F. Store large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Keep containers closed when not in use. Keep containers away from heat sources. Store under inert atmosphere. Do not store with incompatible materials. Store under inert gas. Hygroscopic.

Incompatible products: Strong acids; strong bases. Incompatible materials: Sources of ignition, direct sunlight.

<u>CONTAINER WARNINGS</u>: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Use non-sparking tools to open or close containers.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Hexylene Glycol In RegNo. 01-2	107-41-5 EC-No.203-489-0 dex-No.603-053-00-3 2119539582-35-XXXX	 99 	 25ppm TWA (ACGIH) 25ppm CEIL (OSHA) (Ceiling)

Key: (PEL) = Permissible Exposure Limit OSHA (TLV) = Threshold Limit Value OSHA & ACGIH (STEL) = Short Term Exposure Limit ACGIH (WEEL) = USA. Workplace Environmental Exposure Levels (TWA) = Time Weighted Average CAS = Chemical Abstracts Registry Number IDLH = Immediate Danger to Life and Health N.E. =None Established

8.2 EXPOSURE CONTROLS

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

<u>ENGINEERING CONTROLS</u>: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

<u>RESPIRATORY PROTECTION</u>: For vapor concentrations 1 to 10 times ACGIH TWA an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times ACGIH TWA, in confined areas, and/or where vapor concentrations are unknown use an approved positive pressure full face-piece supplied air respirator (SCBA).

BODY CLOTHING: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

<u>SKIN PROTECTION</u>: Employee must wear appropriate protective gloves to prevent contact with this substance. Rubber or neoprene chemical resistant gloves.

<u>HYGIENE</u>: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

<u>EYE/FACE PROTECTION</u>: Use safety eyewear with splash guards or face shield. Emergency shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Hexylene Glycol 107-41-5 APPEARANCE COLOR: ODOR: ODOR THRESHOLD:

Liquid Colorless Mild sweetish odor No data available

pH: 6.0 - 8.0 at 118.2 g/l at 25 °C (77 °F) MOLECULAR WEIGHT: 118.17 amu -40 °C (-144 °F) MELTING POINT: 197 °C (387 °F) **BOILING POINT:** SPECIFIC GRAVITY: 0.925@25°C 0.925 g/ml@25°C DENSITY (25°C): VAPOR PRESSURE: 0.02 mm Hg @ 20°C (68.0°F) VAPOR DENSITY: 4.08 WATER SOLUBILITY: 118.2 g/l at 20 °C (68 °F) PARTITION COEFFICIENT Nlog Pow: -0.14 OCTANOL/WATER 94 °C (201 °F) - closed cup FLASH POINT: **EVAPORATION RATE (BUTYL ACETATE=1): 0.003** UPPER FLAMMABILITY LIMIT: 7.4% (V) LOWER FLAMMABILITY LIMIT: 1.3% (V) 583°F AUTO INGNITION TEMPERATURE: **DECOMPOSITION TEMPERATURE:** No data available VISCOSITY: No data available EXPLOSIVE PROPERTIES: No data available OXIDIZING PROPERTIES: No data available

9.2 OTHER INFORMATION:

No data available

10. STABILITY AND REACTIVITY INFORMATION

- 10.1 <u>REACTIVITY</u>: Upon combustion: CO and CO2 are formed. Reacts with some acids. Reacts violently with strong oxidizers.
- 10.2 <u>CHEMICAL STABILITY</u>: Unstable () Stable (X) Hygroscopic
- 10.3 <u>POSSIBILITY OF HAZARDOUS REACTIONS</u>: Not established <u>HAZARDOUS POLYMERIZATION:</u> May occur () Will not occur (X)
- 10.4 <u>CONDITIONS TO AVOID</u>: --> Direct Sunlight, extremely high or low temperatures.
- 10.5 <u>INCOMPATIBLE MATERIALS</u> --> Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid, hydrogen peroxide, nitrates, strong bases. Keep away from sulfuric acid, phosphoric acid and other dehydrating agents.
- 10.6 <u>HAZARDOUS DECOMPOSITION PRODUCTS</u> --> Fumes, Smoke, Carbon Monoxide, Carbon Dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x Eye--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye: Moderate to severe irritation; Symptoms are eye irritation, burning sensation, pain, watering and/or change of vision.

Skin: Mildly irritating; Symptoms are drying, cracking or inflammation.

Inhalation: Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma. Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty.

Ingestion: May be harmful if swallowed. Symptoms may include Nausea, vomiting, loss of appetite, gastrointestinal irritation and/or diarrhea. May cause inflammation of mouth, throat, esophagus and/or stomach. May cause central nervous system depression.

Chronic: Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose.

Target Organ effects: Overexposure may cause; CNS Depression, Irritation of the Respiratory Tract, Digestive tract and locally at site of exposure.

Medical Conditions Aggravated by Exposure: Skin contact may aggravate chronic disease of the respiratory tract and existing dermatitis.

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50 (Rat)	Skin LD50 (Rabbit) Inhalation LC50		
Hexylene Glycol	 3700mg/kg 	 7892mg/kg 	 >0.31mg/L/1hr 	

Skin corrosion/irritation – Causes Skin irritation.

Serious eye damage/eye irritation Eyes – Causes serious eye irritation.

Respiratory or skin sensitization – Based on available data the classification criteria are not met.

MUTAGENIC EFFECTS: Does not show mutagenic potential in most in vitro tests. The NOEL was 150mg/kg/day.

CARCINOGEN STATUS: : IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY: Based on available data the classification criteria are not met.

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD: Based on available data the classification criteria are not met.

ADDITIONAL DATA: No data available RTECS: SA0810000

12. ECOLOGICAL INFORMATION

2-methylpentane-2,4-diol

Ecology - water: Hexylene Glycol exhibits low acute toxicity to aquatic species. Ecology – air: Not classified as dangerous to the ozone layer.

12.1 ACUTE AQUATIC TOXI	CITY:
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Toxicity to Fish:			
LC50 Salmo gairdneri (Rainbow Trout)	9450ppm - 96h		
LC50 Leopornis macrochirus (Fish)	12800ppm - 96h		
LC50 Carassius auratus (Goldfish)	12000ppm - 96h		
Toxicity to aquatic invertebrates:			
LC50 Daphnia magna (Water Flea)	5410-8700ppm – 48h		
Toxicity to micro-organisms:			
EC50 Photobacterium phosphoreum (Bacteria)	3070ppm – 5 minute		
Toxicity to Algae:			
EC50 Pseudokirchneriella (Algae)	>429mg/l 72h		

12.2 PERSISTANCE AND DEGRADABILITY: Degradation: Hexylene Glycol was

readily biodegradable in the MITI test. Biochemical oxygen demand (BOD): 0.02g O2/g substance Chemical oxygen demand: 2.20g O2/g substance

12.3 <u>BIOACCUMULATIVE POTENTIAL</u>: The log n-octanol/water partition coefficient was <0.14. This suggests a low potential to bioaccumulate.

12.4 MOBILITY IN SOIL: Surface tension – 0.033N/m

12.5 RESULTS OF PBT AND vPvB ASSESSMENT: This product does not meet the PBT and vPvB classification criteria.

12.6 <u>OTHER ADVERSE EFFECTS</u>: Do not allow this material to enter streams, sewers and other waterways.

13. **DISPOSAL CONSIDERATIONS**

13.1 <u>WASTE TREATMENT METHODS</u>: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. You may incinerate under controlled conditions in a permitted facility.

<u>CONTAMINATED PACKAGING:</u> Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

Land Transport (DOT)

14.1 USDOT ID Number> N/A
14.2 USDOT Shipping Name> Not DOT Regulated
14.3 USDOT Hazard Classification> N/A
USDOT Label Codes> N/A
14.4 USDOT Package Code> N/A
14.5 Environmental hazard> No
14.6 Special precautions for user> None
Sea Transport (IMDC)
14.1 UN Number:> N/A
14.2 Proper Shipping Name> Not Dangerous Good
14.3 Hazard Class:> N/A
USDOT Label Codes> N/A
14.4 Packing Group:> N/A
14.5 Environmental hazard> No

Air Transport (IATA)

- 14.1 UN Number:----> N/A
- 14.2 Proper Shipping Name:----> Not Dangerous goods
- 14.3 Hazard Class:----> N/A
- USDOT Label Codes-----> N/A
- 14.4 Packing Group:----> N/A
- 14.5 Environmental hazard-----> No

15. **REGULATORY INFORMATION**

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Not Listed SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard, Chronic Health Hazard

<u>CERCLA (Comprehensive Environmental Response, Compensation, and Liability</u> <u>Act)</u>

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed Reportable Quantity – None SECTION 101(14) Reportable Quantity: None

Massachusetts Right to Know Components 2-Methylpentane-2, 4-diol CAS-No.107-41-5

Pennsylvania Right to Know Components 2-Methylpentane-2, 4-diol CAS-No.107-41-5

New Jersey Right to Know Components 2-Methylpentane-2, 4-diol CAS-No.107-41-5

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)

2-Methylpentane-2, 4-diol CAS-No.107-41-5 is listed on the TSCA Inventory.

<u>Australia</u>	Australian Inventory of Chemical Substances (AICS)	Yes
<u>Canada</u>	Domestic Substances List (DSL)	Yes
<u>Canada</u>	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<u>Europe</u>	European Inventory of Existing Commercial Chemicals	Yes
	Substances (EINECS)	
<u>Europe</u>	European List of Notified Chemical Substances (ELINCS)	No
<u>Japan</u>	Inventory of Existing and New Chemical Substances (ENCS)	Yes
<u>Japan</u>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<u>Korea</u>	Existing Chemicals List (ECL)	Yes
<u>Mexico</u>	National Inventory of Chemical Substances (INSQ)	Yes
New Zealand	New Zealand Inventory	Yes
<u>Philippines</u>	Philippine Inventory of Chemicals and Chemical Substances	Yes
	(PICCS)	
Switzerland	Inventory of Notified New Substances (CHINV)	Yes
<u>Taiwan</u>	National Existing Chemical Inventory (NECI)	Yes
United States &	Toxic Substances Control Act Inventory	Yes
Puerto Rico		

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

Hazard Rating:

4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant

NFPA RATINGS (SCALE 0-4):	Health=2	Fire=1	Reactivity=0	
HMIS RATINGS (SCALE 0-4):	Health=2	Fire=1	Reactivity=0	PPE=G

Text of hazard statement codes in Section 2 and 3: H315 Causes skin irritation. Category 2 H319 Causes serious eye irritation. Category 2

Date of preparation-----> February 24, 2005 Revision Number-----> 1.6 Revision Content-----> Updated Sections: 1, 2, 5, 8, 10, 11, 15, and 16. Revision Date-----> April 16, 2019 Prepared by-----> T.G. Fenstermaker, Jr.

Acronyms:

- ACGIH American Conference of Governmental Industrial Hygenists
- AIHA American Industrial Hygiene Association
- ANSI American Nation Standards Institute

API	-	American Petroleum Institute
CERCLA		Comprehensive Emergency Response, Compensation, and Liability Act
DOT	-	U.S. Department of Transportation
EPA	-	U.S. Environmental Protection Agency
HMIS	-	Hazardous Materials Information System
IARC	-	International Agency For Research On Cancer
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System

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