

# SAFETY DATA SHEET

## 1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> **Diethylene Glycol Monoethyl Ether**

PRODUCT NUMBER(S)-----> **DEGMEL**

TRADE NAMES AND SYNONYMS-> **Diethylene Glycol Monoethyl Ether, Carbitol**

CAS-No: **111-90-0**

CHEMICAL FAMILY: **Glycol Ether**

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

RECOMMENDED USE: **Solvent in coatings, brake fluids, baking enamels etc.**

USES ADVISED AGAINST: **No information available**

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: **Lab Alley LLC**  
**22111 Highway 71 West, Suite 601**  
**Spicewood, Texas 78669**  
**Tel.: 512-668-9918**

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1.4 Emergency Telephone Number  
Emergency Phone: **Infotrac: 800-535-5053**

## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

**Not a hazardous substance or mixture.**

2.2 GHS Label elements, including precautionary statements

**Not a hazardous substance or mixture.**

Pictogram **None**

Signal word: **None**

Hazard statement(s) None  
Precautionary statement(s) None

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: None

3. **INGREDIENTS**

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Diethylene Glycol	111-90-0	99.0+	Not a hazardous substance or mixture
Monoethyl Ether	EC-No. 203-919-7		
Reg.-No.01-2119475105-42-XXXX			

4. **FIRST-AID MEASURES**

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: Diethylene Glycol Ethyl Ether

**\*\*FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.**

**SKIN CONTACT: Diethylene Glycol Ethyl Ether**

**\*\*FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with waterless cleaner first then soap and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.**

**EYE CONTACT: Diethylene Glycol Ethyl Ether**

**\*\*FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial 1 to 2 minutes of flush. Consult a physician if irritation persists.**

**INGESTION: Diethylene Glycol Ethyl Ether**

**\*\*FIRST AID- Do not induce vomiting unless directed to do so by medical personnel. 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 INGESTION:**

**Eye:** Moderate irritation, including tearing, redness and swelling; Corneal injury is unlikely.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation.

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation

**Ingestion:** Low Toxicity if swallowed. Small amounts swallowed as a result of normal handling operations are not likely to cause injury. Swallowing large amounts may cause injury.

**Chronic:** In animals, effects have been reported on the blood. May cause central nervous system effects.

**Medical Conditions Aggravated by Exposure:** Any pre-existing disorders of the liver and kidney.

**4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:**

**Specific details on antidote: No recommendation given.**

**Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.**

## **5. FIRE FIGHTING MEASURES**

Flash Point: 96°C (205°F) CC

LEL %:1.2 (V)

Auto-ignition Temp: 203.89°C (399°F)

UEL %:23.5 (V)

UNIFORM FIRE CODE: Combustible Liquid: III-B

**5.1 SUITABLE EXTINGUISHING MEDIA:** Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other--> Alcohol resistant Foams (ATC Type) are preferred

Unsuitable extinguishing media: Do not use waterjet.

**5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:** Above the Flash Point explosive vapor/air mixtures may be formed.

**CONDITIONS OF FLAMMABILITY:** Flammable in the presence of a source of ignition when the temperature is above the flash point.

**HAZARDOUS COMBUSTION PRODUCTS:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

**5.3 ADVICE FOR FIREFIGHTERS:** Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Cool containers with flooding amounts of water from as far a distance as possible. Wear NIOSH approved self-contained breathing apparatus for confined spaces. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## **6. ACCIDENTAL RELEASE MEASURES**

**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

## **6.2 ENVIRONMENTAL PRECAUTIONS:**

Keep out of water sources, drains and sewers. Do not flush into surface water or sanitary sewer system

## **6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:**

Methods for cleanup and containment:

Use explosion proof equipment. Shut off valves, contain spill, keep out of water sources and sewers, for smaller 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 non-flammable absorbent. Remove contaminated soil to remove contaminated trace residues.

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace residue. 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 REFERENCE TO OTHER SECTIONS:** See Sections 8 and 13

## **7. HANDLING AND STORAGE**

**7.1 PRECAUTIONS FOR SAFE HANDLING:** 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 breathing vapors in top of shipping container. 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.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

## **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. Recommended storage temperature: 15 - 25°C. Store large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not store with incompatible materials. Keep

containers closed when not in use. Do not take internally. Avoid prolonged or repeated contact with skin, eyes, and clothing. Conditions for safe storage: Store in the following material(s): Carbon steel. Stainless steel. Phenolic lined steel drums. Do not store in: Aluminum. Copper. Galvanized iron. Galvanized steel. Storage stability Steel drums. 24 Month Bulk 6 Month.

**CONTAINER WARNINGS:** 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 re-conditioner. Avoid breathing vapors in top of shipping container. Use with adequate ventilation.

**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
Diethylene Glycol	111-90-0	99.0+	25ppmTWA (WEEL)	
Monoethyl Ether	EC-No. 203-919-7 Reg.-No.01-2119475105-42-XXXX			

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.

**ENGINEERING CONTROLS:** 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.

**RESPIRATORY PROTECTION:** The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For vapor concentrations 1 to 10 times OSHA TWA or PEL an air supplied NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times OSHA TWA or PEL and in confined areas use approved positive pressure full face-piece supplied air respirator.

**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.

**SKIN PROTECTION:** Employee must wear appropriate protective gloves to prevent contact with this substance.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 60 min

**HYGIENE:** Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

**EYE/FACE PROTECTION:** 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:**

**Glycol Ether DE Low Gravity 111-90-0**

<b>APPEARANCE:</b>	Clear liquid
<b>COLOR:</b>	Colorless
<b>ODOR:</b>	Mild odor
<b>ODOR THRESHOLD:</b>	No data Available
<b>pH:</b>	No data available
<b>MOLECULAR WEIGHT:</b>	134.17 amu
<b>MELTING POINT:</b>	-45°F
<b>BOILING POINT:</b>	202°C (396°F)
<b>SPECIFIC GRAVITY:</b>	0.99@25°C
<b>DENSITY (25°C):</b>	0.999 g/ml @25°C
<b>VAPOR PRESSURE:</b>	0.12 mm Hg @ 20°C (68.0°F)
<b>VAPOR DENSITY:</b>	4.6
<b>WATER SOLUBILITY:</b>	Complete
<b>PARTITION COEFFICIENT N- OCTANOL/WATER</b>	log Pow 0.54
<b>FLASH POINT:</b>	96°C (205°F) CC
<b>EVAPORATION RATE (BUTYL ACETATE=1):</b>	0.02
<b>UPPER FLAMMABILITY LIMIT:</b>	23.5% (V)
<b>LOWER FLAMMABILITY LIMIT:</b>	1.2% (V)
<b>AUTO IGNITION TEMPERATURE:</b>	203.89°C (399°F)
<b>DECOMPOSITION TEMPERATURE:</b>	No data available
<b>VISCOSITY:</b>	4.5mPa.s@25°C (77°F)
<b>EXPLOSIVE PROPERTIES:</b>	No data available
<b>OXIDIZING PROPERTIES:</b>	No data available
<b>9.2 OTHER INFORMATION:</b>	No data available

## **10. STABILITY AND REACTIVITY INFORMATION**

**10.1 REACTIVITY:** No data available.

**10.2 CHEMICAL STABILITY:** Unstable ( ) Stable ( X )

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS:** No data available

**HAZARDOUS POLYMERIZATION:** May occur ( ) Will not occur ( X )

**10.4 CONDITIONS TO AVOID:** Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame. Do not distill to dryness.

**10.5 INCOMPATIBLE MATERIALS:** Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide. Alkali metals, aluminum or zinc or their alloys.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS:** Fumes, Smoke, Carbon Monoxide, Carbon Dioxide, Aldehydes, Ketones, Organic acids.  
Generation of gas during decomposition can cause pressure in closed systems.

## **11. TOXICOLOGICAL INFORMATION**

### **11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:**

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

#### **ACUTE HEALTH EFFECTS:**

Effects of overexposure:

**Eye> Moderate irritation, including tearing, redness and swelling; Corneal injury is unlikely.**

**Skin> May be harmful if absorbed through skin. May cause skin irritation.**

**Inhalation> May be harmful if inhaled. May cause respiratory tract irritation**

**Ingestion> Low Toxicity if swallowed. Small amounts swallowed as a result of normal handling operations are not likely to cause injury. Swallowing large amounts may cause injury.**

**Chronic: In animals, effects have been reported on the blood. May cause central nervous system effects.**

**Medical Conditions Aggravated by Exposure> Any pre-existing disorders of the liver and kidney.**

#### **ACUTE TOXICITY:**

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

<b>Ingredient</b>	<b> Oral LD50(Rat)</b>	<b> Skin LD50(Rabbit) </b>	<b>Inhalation LC50</b>	<b> </b>
<b>Diethylene Glycol Monoethyl Ether</b>	<b>6031mg/kg</b>	<b>9143mg/kg</b>	<b>200mg/l</b>	<b> </b>

**SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Mild skin irritation**

**SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Mild eye irritation**

**RESPIRATORY OR SKIN SENSITIZATION: No data available**

**MUTAGENIC EFFECTS: No data available**

**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 on OSHA's list of regulated carcinogens.**

**REPRODUCTIVE TOXICITY: Studies in laboratory animals indicate that Diethylene Glycol Mono-ethyl Ether is not a reproductive toxicant even when given in large amounts.**

**Developmental Toxicity: Did not cause birth defects or any other fetal effects in laboratory animals.**

**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: No data available**

**11.2 ADDITIONAL DATA: Nausea, Headache, Vomiting.**

**RTECS: KK8750000**

## **12. ECOLOGICAL INFORMATION**

### **12.1 AQUATIC TOXICITY:**

**This material is highly soluble in water. This material is practically Non-toxic to aquatic organisms in the most sensitive species tested.**

**Toxicity to fish:**

**LC50 - Pimephales promelas (fathead minnow) - 9,650 mg/l - 96 h**

**Toxicity to daphnia and other invertebrates:**

**EC50 Daphnia Magna (water flea) - 3940-4670mg/l – 48 h**

**12.2 PERSISTANCE AND DEGRADABILITY: This material should biodegrade after an acclimation period and is not expected to be environmentally persistent. Avoid**

accidental releases to aquatic or terrestrial systems.

**12.3 BIOACCUMULATIVE POTENTIAL:** This material is highly soluble in water and should not bioaccumulate in aquatic or terrestrial organisms. The measured octanol/water(log Pow) partition coefficient 0.54

**Biological Oxygen Demand (BOD):** No data available

**Bio-concentration Factor (BCF):** no data available

**12.4 MOBILITY IN SOIL:** No data available.

**12.5 RESULTS OF PBT AND vPvB :**

PBT assessment results: This substance is not classified as PBT or vPvB.

**12.6 OTHER ADVERSE EFFECTS:** No data available.

### **13. DISPOSAL CONSIDERATIONS**

**13.1 WASTE TREATMENT METHODS:** 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. Incinerate under controlled conditions in a permitted facility.

**CONTAMINATED PACKAGING:** 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 Dangerous Goods**

**14.3 USDOT Hazard Classification-----> N/A**

**USDOT Label Codes-----> N/A**

**14.4 USDOT Package Code-----> N/A**

**14.5 Marine Pollutant-----> No**

**14.6 Special precautions for user-----> None**

**Sea Transport (IMDG)**

**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 Marine Pollutant-----> 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) - Listed 2-(2-Ethoxyethoxy) ethanol CAS-No.111-90-0 99.0-100%**

**SECTION 311/312: Hazard Categorization (40 CFR 370) – Chronic Health Hazard**

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)**

**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**

**No components are subject to the Massachusetts Right to Know Act.**

**Pennsylvania Right to Know Components**

**2-(2-Ethoxyethoxy) ethanol CAS-No.111-90-0**

**New Jersey Right to Know Components**

**2-(2-Ethoxyethoxy) ethanol CAS-No.111-90-0**

**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-(2-Ethoxyethoxy) ethanol CAS-No.111-90-0 is listed on the TSCA Inventory.

**International Inventories:**

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

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

**16. OTHER INFORMATION:**

**HMIS** (Hazardous Materials Identification System)

**Hazard Rating:**

**4-Extreme**

**3-High**

**2-Moderate**

**1-Slight**

**0-Insignificant**

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

**Hazard statement(s) from Section 2 and 3:**  
 Not a hazardous substance or mixture

**Date of preparation-----> October 23, 2013**  
**Revision Number-----> 1.6**  
**Revision Content-----> General update all sections**  
**Revision Date-----> August 20, 2018**  
**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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