|  |  |
| --- | --- |
| Metro Welding Supply Corp. logo | Safety Data SheetMethyl Mercaptan |
|  |

# Section 1: Product and Company Identification

**Metro Welding Supply Corp.**

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http://www.metrowelding.com/

Product Code: Methyl Mercaptan

# Section 2: Hazards Identification



**Danger**

## Hazard Classification:

Acute Aquatic Toxicity (Category 1)

Acute Gas Inhale Toxicity (Category 3)

Acute Oral Toxicity (Category 4)

Aspiration Hazard (Category 1)

Eye Effects (Category 2.B)

Flammable (Category 1)

Flammable Aerosol (Category 1)

Gases Under Pressure

## Hazard Statements:

Causes eye irritation

Contains gas under pressure; may explode if heated

Extremely flammable aerosol

Extremely flammable gas

Harmful if swallowed

May be fatal if swallowed and enters airways

Toxic if inhaled

Very toxic to aquatic life

## Precautionary Statements

**Prevention:**

Wash thoroughly after handling.

Avoid breathing dust/fume/gas/mist/ vapors/spray.

Do not eat, drink or smoke when using this product.

[In case of inadequate ventilation] wear respiratory protection.

Use only outdoors or in a well-ventilated area.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Pressurized container: Do not pierce or burn, even after use.

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

**Response:**

Eliminate all ignition sources if safe to do so.

Immediately call a poison center or doctor.

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Do NOT induce vomiting.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.

Protect from sunlight.

Store locked up.

Do not expose to temperatures exceeding 50C/122F.

**Disposal:**

Dispose of contents and/or container in accordance with applicable regulations.

# Section 3: Composition/Information on Ingredients

| CAS # |
| --- |
| 74-93-1 |

| Chemical Substance | Chemical Family | Trade Names |
| --- | --- | --- |
| METHYL MERCAPTAN | mercaptans | METHANETHIOL; THIOMETHANOL; MERCAPTOMETHANE; METHYL SULFHYDRATE; THIOMETHYL ALCOHOL; RCRA U153; STCC 4905520; UN 1064; CH4S |

# Section 4: First Aid Measures

| Skin Contact | Eye Contact | Ingestion | Inhalation | Note to Physicians |
| --- | --- | --- | --- | --- |
| If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention. | Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately. | If a large amount is swallowed, get medical attention. | If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention. | For inhalation, consider oxygen. |

# Section 5: Fire Fighting Measures

| Suitable Extinguishing Media | Products of Combustion | Protection of Firefighters |
| --- | --- | --- |
| Carbon dioxide, alcohol resistant foam Let burn unless leak can be stopped immediately. Large fires: Use regular foam or flood with fine water spray. | Sulfur oxides, hydrogen sulfide | * Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit.
* Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit.
 |

# Section 6: Accidental Release Measures

| Personal Precautions | Environmental Precautions | Methods for Containment |
| --- | --- | --- |
| Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. Ventilate closed spaces before entering. Evacuation radius: 150 feet. For tank, rail car or tank truck: 800 meters (1/2 mile). Do not get water directly on material. Do not touch spilled material. | Avoid heat, flames, sparks and other sources of ignition. | Stop leak if possible without personal risk. Remove sources of ignition. Reduce vapors with water spray. |

| Methods for Cleanup | Other Information |
| --- | --- |
| Dig holding area such as lagoon, pond or pit for containment. Dike for later disposal. Absorb with sand or other non-combustible material. Absorb with activated carbon. Collect spilled material using mechanical equipment. | Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA). |

# Section 7: Handling and Storage

| Handling | Storage |
| --- | --- |
| Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Notify State Emergency Response Commission for storage or use at amounts greater than or equal to the TPQ (U.S. EPA SARA Section 302). SARA Section 303 requires facilities storing a material with a TPQ to participate in local emergency response planning (U.S. EPA 40 CFR 355.30). | Grounding and bonding required. Keep separated from incompatible substances. |

# Section 8: Exposure Controls/Personal Protection

| Exposure Guidelines |
| --- |
| METHYL MERCAPTAN: 10 ppm (20 mg/m3) OSHA ceiling 0.5 ppm (1 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 0.5 ppm ACGIH TWA 0.5 ppm (1 mg/m3) NIOSH recommended ceiling 15 minute(s) |

## Engineering Controls

Handle only in fully enclosed systems.

| Eye Protection | Skin Protection | Respiratory Protection |
| --- | --- | --- |
| Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. | For the gas: Wear appropriate chemical resistant clothing. For the liquid: Wear appropriate protective, cold insulating clothing. | Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit. |

## General Hygiene considerations

* Avoid breathing vapor or mist
* Avoid contact with eyes and skin
* Wash thoroughly after handling and before eating or drinking

# Section 9: Physical and Chemical Properties

| Physical State | Appearance | Color | Change in Appearance | Physical Form | Odor | Taste |
| --- | --- | --- | --- | --- | --- | --- |
| Gas | Clear | Colorless | N/A | Gas | Garlic odor | N/A |

| Flash Point | Flammability | Partition Coefficient | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits |
| --- | --- | --- | --- | --- | --- |
| <0 F (<-18 C) (OC) | Not available | Not available | Not available | 0.218 | 0.039 |

| Boiling Point | Freezing Point | Vapor Pressure | Vapor Density | Specific Gravity | Water Solubility | pH | Odor Threshold | Evaporation Rate | Viscosity |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 43 F (6 C) | -189 F (-123 C) | 1535 mmHg @ 21.1 C | 1.66 (Air=1) | Not applicable | 2.4% @ 20 C | Not applicable | 0.0021 ppm | Not applicable | Not available |

| Molecular Weight | Molecular Formula | Density | Weight per Gallon | Volatility by Volume | Volatility | Solvent Solubility |
| --- | --- | --- | --- | --- | --- | --- |
| 48.11 | C-H3-S-H | 1.999 g/L @ 20 C | Not available | 100% | Not applicable | Soluble: Alcohol, ether, petroleum ether, naphtha |

# Section 10: Stability and Reactivity

| Stability | Conditions to Avoid | Incompatible Materials |
| --- | --- | --- |
| Contact with water or moist air may form flammable and/or toxic gases or vapors. | Contact with water or moist air may form flammable and/or toxic gases or vapors. | Acids, metals, combustible materials, halo carbons, reducing agents, metal oxides, peroxides, oxidizing materials, nitric acid, mercury oxide, calcium hypochlorite |

| Hazardous Decomposition Products | Possibility of Hazardous Reactions |
| --- | --- |
| Oxides of sulfur | Will not polymerize. |

# Section 11: Toxicology Information

## Acute Effects

| Oral LD50 | Dermal LD50 | Inhalation |
| --- | --- | --- |
| LC50, Inhalation, rat = 675 ppm. | Not available | Irritation, nausea, vomiting, wheezing, irregular heartbeat, headache, symptoms of drunkenness, bluish skin color, suffocation, lung congestion, blood disorders, kidney damage, liver damage, convulsions, coma |

| Eye Irritation | Skin Irritation | Sensitization |
| --- | --- | --- |
| Irritation, blurred vision | Irritation, blisters | Harmful if inhaled, respiratory tract irritation, skin irritation, eye irritation, central nervous system depression |

## Chronic Effects

| Carcinogenicity | Mutagenicity | Reproductive Effects | Developmental Effects |
| --- | --- | --- | --- |
| Not available | Available. | Not available | No data |

# Section 12: Ecological Information

## Fate and Transport

|  |  |  |  |
| --- | --- | --- | --- |
| Eco toxicity | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
| Fish toxicity: 500 ug/L 5 hour(s) (Mortality) Spotfin shiner (Notropis spilopterus)Invertibrate toxicity: 50000 ug/L 48 hour(s) (Mortality) Midge (Chironomus sp)Algal toxicity: Not availablePhyto toxicity: Not availableOther toxicity: Not available | Not available | Not available | Not available |

# Section 13: Disposal Considerations

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| --- |
| Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U153. |

# Section 14: Transportation Information

## U.S. DOT 49 CFR 172.101

| Proper Shipping Name | ID Number | Hazard Class or Division | Packing Group | Labeling Requirements | Passenger Aircraft or Railcar Quantity Limitations | Cargo Aircraft Only Quantity Limitations | Additional Shipping Description |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Methyl mercaptan | UN1064 | 2.3 | Not applicable | 2.3; 2.1 | Forbidden | Forbidden | Toxic-Inhalation Hazard Zone C |

## Canadian Transportation of Dangerous Goods

|  |  |  |  |
| --- | --- | --- | --- |
| Shipping Name | UN Number | Class | Packing Group / Risk Group |
| Methyl mercaptan | UN1064 | 2.3; 2.1 | Not applicable |

# Section 15: Regulatory Information

## U.S. Regulations

|  |  |  |
| --- | --- | --- |
| CERCLA Sections | SARA 355.30 | SARA 355.40 |
| 100 LBS RQ | 500 LBS TPQ | 100 LBS RQ |

## SARA 370.21

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Acute | Chronic | Fire | Reactive | Sudden Release |
| Yes  | No | Yes | No | Yes |

## SARA 372.65

|  |
| --- |
| METHYL MERCAPTAN: Administrative stay issued Aug. 22, 1994 |

## OSHA Process Safety

|  |
| --- |
| 5000 LBS TQ |

## State Regulations

|  |
| --- |
| CA Proposition 65 |
| Not regulated. |

## Canadian Regulations

|  |
| --- |
| WHMIS Classification |
| ABD1 |

## National Inventory Status

|  |  |  |
| --- | --- | --- |
| US Inventory (TSCA) | TSCA 12b Export Notification | Canada Inventory (DSL/NDSL) |
| Listed on inventory. | METHANETHIOL CAS NUMBER: 74-93-1 SECTION 4 | Not determined. |

# Section 16: Other Information

|  |
| --- |
| NFPA Rating |
| HEALTH=4 FIRE=4 REACTIVITY=0 |

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard