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| --- | --- |
| Metro Welding Supply Corp. logo | Safety Data Sheet  Trimethylamine |
|  |

# Section 1: Product and Company Identification

**Metro Welding Supply Corp.**

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Detroit, MI 48223
  
(313) 834-1660 [phone]
  
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http://www.metrowelding.com/

Product Code: Trimethylamine

# Section 2: Hazards Identification



**Danger**

## Hazard Classification:

Acute Gas Inhale Toxicity (Category 1)

Acute Oral Toxicity (Category 4)

Acute Vapor Inhale Toxicity (Category 4)

Aspiration Hazard (Category 1)

Eye Effects (Category 1)

Flammable (Category 1)

Flammable Aerosol (Category 1)

Gases Under Pressure

## Hazard Statements:

Causes serious eye damage

Contains gas under pressure; may explode if heated

Extremely flammable aerosol

Extremely flammable gas

Fatal if inhaled

Harmful if inhaled

Harmful if swallowed

May be fatal if swallowed and enters airways

## Precautionary Statements

**Prevention:**

Wash thoroughly after handling.

Wear eye protection/face protection.

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

[In case of inadequate ventilation] wear respiratory protection.

Do not breathe dust/fume/gas/mist/ vapors/spray..

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.

Specific treatment is urgent.

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 # |
| --- |
| 75-50-3 |

| Chemical Substance | Chemical Family | Trade Names |
| --- | --- | --- |
| TRIMETHYLAMINE | amines, aliphatic | N,N-DIMETHYLMETHANAMINE; N,N-DIMETHYL METHANAMINE; N,NDIMETHYL, METHYLAMINE; METHANAMINE, N,N-DIMETHYL-; TRIMETHYLAMINE, ANHYDROUS; N-TRIMETHYLAMINE; TMA; UN 1083; C3H9N |

# Section 4: First Aid Measures

| Skin Contact | Eye Contact | Ingestion | Inhalation | Note to Physicians |
| --- | --- | --- | --- | --- |
| Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing before reuse. Destroy contaminated shoes. | Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention. | If swallowed, drink plenty of water, DO NOT induce vomiting. Get immediate 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. Avoid gastric lavage or emesis. |

# Section 5: Fire Fighting Measures

| Suitable Extinguishing Media | Products of Combustion | Protection of Firefighters |
| --- | --- | --- |
| Regular dry chemical Large fires: Use regular foam or flood with fine water spray. avoid carbon dioxide | Ammonia, oxides of carbon, oxides of nitrogen | * 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. | Avoid heat, flames, sparks and other sources of ignition. | Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition. Dig holding area such as lagoon, pond or pit for containment. Trap spilled material at bottom in deep water pockets, excavated holding areas or within sand bag barriers. |

| Methods for Cleanup | Other Information |
| --- | --- |
| Collect runoff for disposal as potential hazardous waste. Dike for later disposal. Absorb with sand or other non-combustible material. Add an alkaline material (lime, crushed limestone, sodium bicarbonate, or soda ash). Apply detergents, soaps, alcohols or another surface active agent. 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 ERCLA 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. Store below 52 C. Store in a cool, dry place. Store in a well-ventilated area. Store outside or in a detached building. Avoid contact with water or moisture. Subject to storage regulations: U.S OSHA 29 CFR 1910.101. | Protect from physical damage. Keep separated from incompatible substances. |

# Section 8: Exposure Controls/Personal Protection

| Exposure Guidelines |
| --- |
| TRIMETHYLAMINE: 10 ppm (24 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 15 ppm (36 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) 5 ppm ACGIH TWA 15 ppm ACGIH STEL 10 ppm (24 mg/m3) NIOSH recommended TWA 10 hour(s) 15 ppm (36 mg/m3) NOISH recommended STEL 1 ppm AIHA WEEL recommended TWA |

## 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. | Wear appropriate chemical resistant 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 | Ammonia odor, fishy odor, pungent odor | Salty taste |

| Flash Point | Flammability | Partition Coefficient | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits |
| --- | --- | --- | --- | --- | --- |
| 10 F (-12 C) (CC) | Not available | 0.16 (log = -0.796) | 374 F (190 C) | 0.116 | 0.02 |

| Boiling Point | Freezing Point | Vapor Pressure | Vapor Density | Specific Gravity | Water Solubility | pH | Odor Threshold | Evaporation Rate | Viscosity |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25-37 F (-4 to 3 C) | -191 to -179 F (-124 to -117 C) | 1.9 atm @ 21.1 C | 2.04-2.10 (Air=1) | 0.6356-0.6709 | 41000 mg/100 g @ 19 C | Strongly basic | 0.00021 ppm | >1 (butyl acetate=1) | Not available |

| Molecular Weight | Molecular Formula | Density | Weight per Gallon | Volatility by Volume | Volatility | Solvent Solubility |
| --- | --- | --- | --- | --- | --- | --- |
| 59.11 | (C-H3)3-N | 2.592 kg/m3 @ 21.1 C | 5.3 lbs | Not available | Not applicable | Soluble: Alcohol, benzene, chloroform, ethanol, ether, toluene, xylene |

# Section 10: Stability and Reactivity

| Stability | Conditions to Avoid | Incompatible Materials |
| --- | --- | --- |
| Stable at normal temperatures and pressure. | Stable at normal temperatures and pressure. | Acids, combustible materials, metals, halogens, halo carbons, oxidizing materials, reducing agents |

| Hazardous Decomposition Products | Possibility of Hazardous Reactions |
| --- | --- |
| Ammonia, oxides of carbon, oxides of nitrogen; in the absence of oxygen: amides, cyanates, cyanogen, hydrogen cyanide, isocyanates, nitriles, nitrogen compounds, oxides of carbon | Will not polymerize. |

# Section 11: Toxicology Information

## Acute Effects

| Oral LD50 | Dermal LD50 | Inhalation |
| --- | --- | --- |
| 500 mg/kg oral-rat LD50 | Not available | Burns |

| Eye Irritation | Skin Irritation | Sensitization |
| --- | --- | --- |
| Burns, tearing | Burns, absorption may occur, nausea, headache | Harmful if inhaled, harmful if swallowed, respiratory tract burns, skin burns, mucous membrane burns, tears |

## Chronic Effects

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

# Section 12: Ecological Information

## Fate and Transport

|  |  |  |  |
| --- | --- | --- | --- |
| Eco toxicity | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
| Fish toxicity: Not available  Invertibrate toxicity: 1000000 ug/L 48 hour(s) LC50 (Mortality) Medaka, high-eyes (Oryzias latipes)  Algal toxicity: 5900 ug/L 96 hour(s) (Physiological) Green algae (Gloeotaenium loitlesbergerianu)  Phyto toxicity: Not available  Other toxicity: May cause pH changes in aqueous ecological systems | Not available | Accumulates very little in the bodies of living organisms. | Leaches through the soil or the sediment at a very rapid rate. |

# 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): D001. |

# 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 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Trimethylamine, anhydrous | UN1083 | 2.1 | Not applicable | 2.1 | Forbidden | 150 kg | N/A |

## Canadian Transportation of Dangerous Goods

|  |  |  |  |
| --- | --- | --- | --- |
| Shipping Name | UN Number | Class | Packing Group / Risk Group |
| Trimethylamine, anhydrous | UN1083 | 2.1 | Not applicable |

# Section 15: Regulatory Information

## U.S. Regulations

|  |  |  |
| --- | --- | --- |
| CERCLA Sections | SARA 355.30 | SARA 355.40 |
| 100 LBS RQ | Not regulated. | Not regulated. |

## SARA 370.21

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

## SARA 372.65

|  |
| --- |
| Not regulated. |

## OSHA Process Safety

|  |
| --- |
| Not regulated. |

## State Regulations

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

## Canadian Regulations

|  |
| --- |
| WHMIS Classification |
| ABD1E |

## National Inventory Status

|  |  |  |
| --- | --- | --- |
| US Inventory (TSCA) | TSCA 12b Export Notification | Canada Inventory (DSL/NDSL) |
| Listed on inventory. | Not listed. | Not determined. |

# Section 16: Other Information

|  |
| --- |
| NFPA Rating |
| HEALTH=3 FIRE=4 REACTIVITY=0 |

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