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

# Section 1: Product and Company Identification

**Metro Welding Supply Corp.**

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Detroit, MI 48223
  
(313) 834-1660 [phone]
  
(313) 835-3562 [fax]
  
http://www.metrowelding.com/

Product Code: Toluene

# Section 2: Hazards Identification



**Danger**

## Hazard Classification:

Acute Gas Inhale Toxicity (Category 1)

Acute Oral 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 swallowed

May be fatal if swallowed and enters airways

Toxic to aquatic life

## 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 # |
| --- |
| 108-88-3 |

| Chemical Substance | Chemical Family | Trade Names |
| --- | --- | --- |
| TOLUENE | hydrocarbons, aromatic | METHYLBENZENE; TOLUOL; METHYLBENZOL; PHENYLMETHANE; METHACIDE; RCRA U220; UN 1294; C7H8 |

# 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 and shoes before reuse. | Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention. | Aspiration hazard. DO NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Get immediate medical attention. Give artificial respiration if not breathing. | If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention. | None |

# Section 5: Fire Fighting Measures

| Suitable Extinguishing Media | Products of Combustion | Protection of Firefighters |
| --- | --- | --- |
| Regular dry chemical, carbon dioxide, water, regular foam Large fires: Use regular foam or flood with fine water spray. | Carbon monoxide, carbon dioxide and toxic and irritating fumes | * Any self-contained breathing apparatus with a full facepiece. * Any self-contained breathing apparatus with a full facepiece. |

# 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. | Avoid heat, flames, sparks and other sources of ignition. Keep out of water supplies and sewers. | 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. |

| Methods for Cleanup | Other Information |
| --- | --- |
| Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Collect with absorbent into suitable container. Absorb with activated carbon. Collect spilled material using mechanical equipment. Cover with absorbent sheets, spill-control pads or pillows. Apply detergents, soaps, alcohols or another surface active agent. Remove trapped material with suction hoses. | 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 Section103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA). Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). |

# 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 1910.106. Store outside or in a detached building. Store with flammable liquids. Store in a tightly closed container. Store in a cool, dry place. | Protect from physical damage. Keep separated from incompatible substances. Grounding and bonding required. |

# Section 8: Exposure Controls/Personal Protection

| Exposure Guidelines |
| --- |
| TOLUENE: 200 ppm OSHA TWA 300 ppm OSHA ceiling 500 ppm OSHA peak 10 minute(s) 100 ppm (377 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 150 ppm (565 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) 50 ppm ACGIH TWA (skin) 100 ppm (375mg/m3) NIOSH recommended TWA 10 hour(s) 150 ppm (560 mg/m3) NIOSH recommended STEL |

## 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. |

## 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 |
| --- | --- | --- | --- | --- | --- | --- |
| Liquid | Clear | Colorless | N/A | Liquid | Distinct odor | N/A |

| Flash Point | Flammability | Partition Coefficient | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits |
| --- | --- | --- | --- | --- | --- |
| 39 F (4 C) (CC) | IB | Not available | 896 F (480 C) | 0.071 | 0.012 |

| Boiling Point | Freezing Point | Vapor Pressure | Vapor Density | Specific Gravity | Water Solubility | pH | Odor Threshold | Evaporation Rate | Viscosity |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 232 F (111 C) | -139 F (-95 C) | 22 mmHg @ 20 C | 3.14 (Air=1) | 0.8669 | 0.05% @ 20 C | Not available | 10-15 ppm | 2.24 (butyl acetate=1) | 0.560 mPa.s @ 25 C |

| Molecular Weight | Molecular Formula | Density | Weight per Gallon | Volatility by Volume | Volatility | Solvent Solubility |
| --- | --- | --- | --- | --- | --- | --- |
| 92.14 | C6-H5-C-H3 | Not available | Not available | 100% | 1 | Soluble: Alcohol, ether, benzene, acetone, ligroin, chloroform, acetic acid, carbon disulfide |

# Section 10: Stability and Reactivity

| Stability | Conditions to Avoid | Incompatible Materials |
| --- | --- | --- |
| Stable at normal temperatures and pressure. | Stable at normal temperatures and pressure. | Halogens, combustible materials, acids, oxidizing materials, metal salts |

| Hazardous Decomposition Products | Possibility of Hazardous Reactions |
| --- | --- |
| Oxides of carbon, hydrocarbons | Will not polymerize. |

# Section 11: Toxicology Information

## Acute Effects

| Oral LD50 | Dermal LD50 | Inhalation |
| --- | --- | --- |
| 636 mg/kg oral-rat LD50 | 14100 ul/kg skin-rabbit LD50 | Irritation, metallic taste, nausea, headache, drowsiness, symptoms of drunkenness, tingling sensation, dilated pupils, kidney damage, liver damage, nerve damage |

| Eye Irritation | Skin Irritation | Sensitization |
| --- | --- | --- |
| Irritation (possibly severe), tearing | Irritation | Respiratory tract irritation, skin irritation, eye irritation, aspiration hazard, central nervous system depression, nerve damage |

## Chronic Effects

| Carcinogenicity | Mutagenicity | Reproductive Effects | Developmental Effects |
| --- | --- | --- | --- |
| IARC: Human Inadequate Evidence, Animal Evidence Suggesting Lack of Carcinogenicity, Group 3; ACGIH: A4 -Not Classifiable as a Human Carcinogen | Available. | Available. | No data |

# Section 12: Ecological Information

## Fate and Transport

|  |  |  |  |
| --- | --- | --- | --- |
| Eco toxicity | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
| Fish toxicity: 8110 ug/L 96 hour(s) LC50 (Mortality) Coho salmon, silver salmon (Oncorhynchus kisutch)  Invertibrate toxicity: 6000 ug/L 48 hour(s) EC50 (Immobilization) Water flea (Daphnia magna)  Algal toxicity: 9400 ug/L 8 hour(s) EC50 (Growth) Green algae (Selenastrum capricornutum)  Phyto toxicity: Not available  Other toxicity: Not available | Not available | Not available | Not available |

# Section 13: Disposal Considerations

|  |
| --- |
| Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U220. |

# 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 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Toluene | UN1294 | 3 | II | 3 | 5 kg or L | 60L | N/A |

## Canadian Transportation of Dangerous Goods

|  |  |  |  |
| --- | --- | --- | --- |
| Shipping Name | UN Number | Class | Packing Group / Risk Group |
| Toluene | UN1294 | 3 | II |

# Section 15: Regulatory Information

## U.S. Regulations

|  |  |  |
| --- | --- | --- |
| CERCLA Sections | SARA 355.30 | SARA 355.40 |
| 1000 LBS RQ | Not regulated. | Not regulated. |

## SARA 370.21

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

## SARA 372.65

|  |
| --- |
| TOLUENE |

## OSHA Process Safety

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

## State Regulations

|  |
| --- |
| CA Proposition 65 |
| Known to the state of California to cause the following: TOLUENE Developmental toxicity (Jan 01, 1991) |

## Canadian Regulations

|  |
| --- |
| WHMIS Classification |
| BD2 |

## 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=2 FIRE=3 REACTIVITY=0 |

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