|  |  |
| --- | --- |
| Metro Welding Supply Corp. logo | Safety Data Sheet  TRIFLUOROMETHANE (HC-23) |
|  |

# Section 1: Product and Company Identification

**Metro Welding Supply Corp.**

12620 Southfield Road
  
Detroit, MI 48223
  
(313) 834-1660 [phone]
  
(313) 835-3562 [fax]
  
http://www.metrowelding.com/

Product Code: TRIFLUOROMETHANE (HC-23)

# Section 2: Hazards Identification



**Warning**

## Hazard Classification:

Corrosive To Metal (Category 1)

Eye Effects (Category 2.B)

Gases Under Pressure

## Hazard Statements:

Causes eye irritation

Contains gas under pressure; may explode if heated

May be corrosive to metals

## Precautionary Statements

**Prevention:**

Wash thoroughly after handling.

Keep only in original container.

**Response:**

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

Absorb spillage to prevent material damage.

**Storage:**

Protect from sunlight.

Store in well-ventilated place.

Store in corrosive resistant container with a resistant inner liner.

# Section 3: Composition/Information on Ingredients

| CAS # |
| --- |
| 75-46-7 |

| Chemical Substance | Chemical Family | Trade Names |
| --- | --- | --- |
| TRIFLUOROMETHANE (HC-23) |  | Fluoroform; Arcton 1; Fluoryl; Freon F-23; Freon 23; Genetron 23; Methyl trifluoride; R 23; Trifluoromethane; CHF3; Arcton; Halocarbon 23; UN 1984; Carbon trifluoride; Genetron HFC23; Propellant 23; Refrigerant 23 |

# Section 4: First Aid Measures

| Skin Contact | Eye Contact | Ingestion | Inhalation | Note to Physicians |
| --- | --- | --- | --- | --- |
| Flush with plenty of water | Flush with plenty of water for at least 15 minutes | Unlikely. | Move to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention. |  |

# Section 5: Fire Fighting Measures

| Suitable Extinguishing Media | Products of Combustion | Protection of Firefighters |
| --- | --- | --- |
| Non-flammable. Use extinguishing agent suitable for the surrounding fire. | Carbon dioxide, carbon monoxide, halogenated compounds, carbonyl halides | * Fire-fighters wear appropriate protective equipment and self-contained breathing apparatus |

# Section 6: Accidental Release Measures

| Personal Precautions | Environmental Precautions | Methods for Containment |
| --- | --- | --- |
| Contact emergency personnel immediately. Keep unnecessary people away, isolate hazard area and deny entry. | Avoid dispersal of spilled material and runoff and contact with soil, waterways, and swerves. | Not available |

| Methods for Cleanup | Other Information |
| --- | --- |
| Contact emergency personnel. stop leak if possible without risk. | Not available |

# Section 7: Handling and Storage

| Handling | Storage |
| --- | --- |
| Store upright, with valve protection cap, and firmly secured to prevent falling. Cylinder temperature should not exceed 52 degs C. | High pressure gas. Do not puncture or incinerate container. Store and handle in accordance with all current regulations and standards. |

# Section 8: Exposure Controls/Personal Protection

| Exposure Guidelines |
| --- |
| Not available |

## Engineering Controls

No specific controls are needed.

| Eye Protection | Skin Protection | Respiratory Protection |
| --- | --- | --- |
| Use approved standard safety eyewear. | Use personal protective equipment based on task being performed. |  |

## 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 liquid and vapor | Colorless |  | Gas | Faint ethereal odor | Not found |

| Flash Point | Flammability | Partition Coefficient | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits |
| --- | --- | --- | --- | --- | --- |
| Not applicable | Not applicable |  | 765 C | None | None |

| Boiling Point | Freezing Point | Vapor Pressure | Vapor Density | Specific Gravity | Water Solubility | pH | Odor Threshold | Evaporation Rate | Viscosity |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| -82.1 C | -155 C | 623.4 psia at 70 deg F | 2.4 (Air=1) | 21.1 C | Unknown | Neutral | Not found | >1 (butyl acetate=1) |  |

| Molecular Weight | Molecular Formula | Density | Weight per Gallon | Volatility by Volume | Volatility | Solvent Solubility |
| --- | --- | --- | --- | --- | --- | --- |
| 70.013 | CHF3 |  |  | 100% | Not available |  |

# Section 10: Stability and Reactivity

| Stability | Conditions to Avoid | Incompatible Materials |
| --- | --- | --- |
| Stable | Stable | At very high temperatures and/or appropriate pressures, avoid freshly abraded aluminum surfaces and chemically reactive metals (potassium, calcium, powdered aluminum, magnesium, and zinc) |

| Hazardous Decomposition Products | Possibility of Hazardous Reactions |
| --- | --- |
| Halogens, halogen acids and possibly carbonyl halides | Will not occur |

# Section 11: Toxicology Information

## Acute Effects

| Oral LD50 | Dermal LD50 | Inhalation |
| --- | --- | --- |
| Not available | Not available | Symptoms of asphyxiation, loss of coordination, increased pulse rate, deeper respiration |

| Eye Irritation | Skin Irritation | Sensitization |
| --- | --- | --- |
| Liquid contact causes severe irritation and frost bit. mist may irritate | Irritation. liquid contact can cause frostbite | Central nervous system depression cardiac arrhythmia |

## Chronic Effects

| Carcinogenicity | Mutagenicity | Reproductive Effects | Developmental Effects |
| --- | --- | --- | --- |
| No known significant effects or critical hazards | At very high temperatures and/or appropriate pressures, avoid freshly abraded aluminum surfaces and chemically reactive metals (potassium, calcium, p | At very high temperatures and/or appropriate pressures, avoid freshly abraded aluminum surfaces and chemically reactive metals (potassium, calcium, p | No data |

# Section 12: Ecological Information

## Fate and Transport

|  |  |  |  |
| --- | --- | --- | --- |
| Eco toxicity | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
| Fish toxicity: Not available  Invertibrate toxicity: not available  Algal toxicity: not available  Phyto toxicity: not available  Other toxicity: not available | Not available | Not available | Not available |

# Section 13: Disposal Considerations

|  |
| --- |
| Must disposed of in accordance with appropriate federal, state, and local regulation. |

# 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 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| TRIFLUOROMETHAN OR REFRIGERANT GAS R23 | UN1984 | 2.2 | NOT APPLICABLE | 2.2 | 75 kg | 150 kg | Not available |

## Canadian Transportation of Dangerous Goods

|  |  |  |  |
| --- | --- | --- | --- |
| Shipping Name | UN Number | Class | Packing Group / Risk Group |
| TRIFLUOROMETHAN OR REFRIGERANT GAS R23 | UN1984 | 2.2 | Not available |

# Section 15: Regulatory Information

## U.S. Regulations

|  |  |  |
| --- | --- | --- |
| CERCLA Sections | SARA 355.30 | SARA 355.40 |
| Not available | Not available | Not available |

## SARA 370.21

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Acute | Chronic | Fire | Reactive | Sudden Release |
| Not available | Not available | NOT AVAILABLE | NOT AVAILABLE | NOT AVAILABLE |

## SARA 372.65

|  |
| --- |
| NOT AVAILABLE |

## OSHA Process Safety

|  |
| --- |
| NOT AVAILABLE |

## State Regulations

|  |
| --- |
| CA Proposition 65 |
| NOT AVAILABLE |

## Canadian Regulations

|  |
| --- |
| WHMIS Classification |
| Class A: Compressed Gas |

## National Inventory Status

|  |  |  |
| --- | --- | --- |
| US Inventory (TSCA) | TSCA 12b Export Notification | Canada Inventory (DSL/NDSL) |
| Listed | Not listed | Not available |

# Section 16: Other Information

|  |
| --- |
| NFPA Rating |
| HEALTH:1, FLAMMABILITY: 0, INSTABILITY: 0 |

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