



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product identifier** Red Thunder  
**Version #** 02  
**Issue date** 05-19-2015  
**Revision date** 05-19-2015  
**CAS #** Mixture  
**Product Code** 1023  
**Product use** Degreaser  
**Manufacturer information** Malco Products, Inc.  
361 Fairview Ave  
Barberton, OH 44203  
United States  
msdsinfo@malcopro.com  
www.malcopro.com  
Phone 800-253-2526  
Fax 330-753-2025  
Phone 1-800-424-9300  
**Supplier** Not available.

## 2. Hazards Identification

**Emergency overview** DANGER  
Corrosive. Causes skin and eye burns.

**Potential health effects**  
**Routes of exposure** Inhalation. Ingestion. Skin contact. Eye contact.  
**Eyes** Causes chemical burns. Corrosive to the eyes and may cause severe damage including blindness. Do not get this material in contact with eyes.  
**Skin** Causes chemical burns. Do not get this material in contact with skin.  
**Inhalation** May cause irritation of respiratory tract. Prolonged inhalation may be harmful. Do not breathe dust/fume/gas/mist/vapors/spray.  
**Ingestion** Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. Do not ingest.

**Chronic effects** Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.  
**Signs and symptoms** Contact with this material will cause burns to the skin, eyes and mucous membranes.  
**Potential environmental effects** May cause long-term adverse effects in the environment.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
Diethylene Glycol Monobutyl Ether	112-34-5	1 - 5
Sodium Metasilicate	6834-92-0	1 - 5
Other components below reportable levels		60 - 100

## 4. First Aid Measures

**First aid procedures**  
**Inhalation** Move to fresh air. Get medical attention, if needed.  
**Skin contact** Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.  
**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Get medical attention immediately.

## Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

## Notes to physician

In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.

## General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

# 5. Fire Fighting Measures

## Flammable properties

Not flammable by WHMIS criteria.

## Extinguishing media

### Suitable extinguishing media

Not available.

### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

## Fire fighting equipment/instructions

Not available.

## Explosion data

### Sensitivity to static discharge

Not available.

### Sensitivity to mechanical impact

Not available.

## Hazardous combustion products

Not available.

# 6. Accidental Release Measures

## Personal precautions

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the MSDS.

## Environmental precautions

Do not contaminate water.

## Methods for containment

Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

## Methods for cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.

## Other information

Clean up in accordance with all applicable regulations.

# 7. Handling and Storage

## Handling

Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Do not use in areas without adequate ventilation. Wash thoroughly after handling. Avoid release to the environment.

## Storage

Store in a closed container away from incompatible materials. Store away from incompatible materials (see Section 10 of the MSDS).

# 8. Exposure Controls / Personal Protection

## Occupational exposure limits

### US. ACGIH Threshold Limit Values Components

### Type

### Value

### Form

Diethylene Glycol  
Monobutyl Ether (CAS  
112-34-5)

TWA

10 ppm

Inhalable fraction and  
vapor.

Components	Type	Value	Form
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).		
<b>Engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas.		
<b>Personal protective equipment</b>			
<b>Eye/face protection</b>	Face-shield. Do not get in eyes.		
<b>Skin protection</b>	Do not get this material in contact with skin. Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection.		
<b>Respiratory protection</b>	Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.		
<b>Hand protection</b>	Wear protective gloves.		

## 9. Physical & Chemical Properties

<b>Appearance</b>	Clear.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Red
<b>Odor</b>	Cinnamon
<b>Odor threshold</b>	Not available.
<b>pH</b>	12.7
<b>Vapor pressure</b>	0.0008 hPa estimated
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	446.72 °F (230.4 °C) estimated
<b>Melting point/Freezing point</b>	937.46 °F (503.03 °C) estimated
<b>Solubility (water)</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Relative density</b>	Not available.
<b>Flash point</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	442 °F (227.78 °C) estimated
<b>VOC</b>	0 %
<b>Evaporation rate</b>	Not available.
<b>Viscosity</b>	5 cP estimated
<b>Viscosity temperature</b>	68 °F (20 °C) estimated
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Other data</b>	
<b>Density</b>	8.80 lb/gal estimated
<b>Kinematic viscosity</b>	4.77 cSt estimated
<b>Kinematic viscosity temp</b>	68 °F (20 °C) estimated

## 10. Chemical Stability & Reactivity Information

<b>Reactivity</b>	Reacts violently with strong acids. This product may react with oxidizing agents.
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<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Oxidizing agents.
<b>Hazardous decomposition products</b>	Not available.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

Components	Species	Test Results
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2700 mg/kg
<b>Oral</b>		
LD50	Guinea pig	2000 mg/kg
	Mouse	2400 mg/kg
	Rabbit	2200 mg/kg
	Rat	4500 mg/kg
<b>Acute effects</b>	Causes burns.	
<b>Sensitization</b>	Not available.	
<b>Local effects</b>	May produce corrosive solutions on contact with water.	
<b>Chronic effects</b>	Not expected to be hazardous by WHMIS criteria. Prolonged inhalation may be harmful.	
<b>Carcinogenicity</b>	Not available.	
<b>Skin corrosion/irritation</b>	Corrosive effects.	
<b>Serious eye damage/irritation</b>	Not available.	
<b>Mutagenicity</b>	Not available.	
<b>Reproductive effects</b>	Not available.	
<b>Teratogenicity</b>	Not available.	
<b>Synergistic materials</b>	Not available.	

## 12. Ecological Information

### Ecotoxicological data

Components	Species	Test Results
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)		
<b>Aquatic</b>		
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> ) 1300 mg/l, 96 hours
Sodium Metasilicate (CAS 6834-92-0)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea ( <i>Ceriodaphnia dubia</i> ) 0.28 - 0.57 mg/l, 48 hours
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> ) 1800 mg/l, 96 hours
<b>Ecotoxicity</b>	Contains a substance which causes risk of hazardous effects to the environment.	
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
<b>Aquatic toxicity</b>	Not available.	
<b>Persistence and degradability</b>	Not available.	
<b>Partition coefficient</b>		
Diethylene Glycol Monobutyl Ether	0.56	

### 13. Disposal Considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport Information

#### TDG

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

### 15. Regulatory Information

<b>Canadian regulations</b>	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
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#### WHMIS status

Controlled

#### WHMIS classification

E - Corrosive

#### WHMIS labeling



#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

### 16. Other Information

#### NFPA ratings

Health: 3  
Flammability: 1  
Instability: 1

**Disclaimer**

Malco Automotive cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Prepared by**

Not available.