



# TRON

L U B R I C A N T S

ULTRON

MEGATRON

POWERTRON

## Material Safety Data Sheet

### Megatron ANTIFREEZE

#### 1. Product & Company Identification

Product Name : Megatron Antifreeze 50% / 80%  
Product Use : Radiator Coolant and Antifreeze  
Supplier : Tron Lubricants (Tel: 031-4649300)  
8 Silicon Road,  
Marian Industrial Park,  
Pinetown,  
4147.  
Health Emergency Telephone : 10111  
Contact Info : [info@tronlubricants.co.za](mailto:info@tronlubricants.co.za)  
Tron Website : <http://www.tronlubricants.co.za>

#### 2. Hazards Identification

Emergency response data : Fluorescent Pink/Yellow Liquid. DOT ERG No. : 171  
Potential health effects  
Inhalation toxicity : Excessive inhalation of vapours or mists for prolonged periods of time may also result in toxic effects.  
Skin irritation : Practically non-irritating.  
Eye irritation : Irritant  
Ingestion : Ingestion of ethylene glycol may result in nausea, abdominal cramps, vomiting, convulsions, Oedema of the lung, cardiopulmonary effects (metabolic acidosis), pneumonia and kidney failure  
Which could result in death. The single lethal dose for humans is about 100 ml.  
Potential environmental Effects : Toxic to fish, wildlife and aquatic organisms. Do not discharge into streams, ponds, lakes and ground water supply.

See section 11 for further health effects/toxicological data.

#### 3. Composition/Information on Ingredients

| Chemical Name           | CAS-No.    | Weight % | Symbol Codes | R-Phrase Numbers |
|-------------------------|------------|----------|--------------|------------------|
| Ethylene Glycol         | 107-21-1   |          | Xn           | R22              |
| Sodium 2-ethylhexanoate | 19766-89-3 |          | Xn           | R63              |

See section 8 for further Exposure limits (if applicable)

#### 4. First Aid Measures

Inhalation : Remove from further exposure. If respiratory irritation, nausea, dizziness, or unconsciousness occurs, seek medical assistance immediately.  
Skin Contact : Remove contaminated clothing. Dry wipe exposed skin and cleanse with hand cleaner, soap and water. Launder contaminated clothing before reuse.  
Eye Contact : Flush eyes with copious amounts of water for at least 15 minutes. Seek medical assistance.  
Ingestion : Seek immediate medical assistance. If medical assistance is delayed, contact a Regional Poison Centre or emergency medical professional regarding the use of activated carbon or the

induction of vomiting.

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## 5. Fire-Fighting Measures

Clear fire area of all non-emergency personnel.

|   |   |   |
|---|---|---|
| Extinguishing Media                           | : | Foam, water spray, dry chemical powder or carbon dioxide.   |
| Special firefighting procedure                | : | Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.   |
| Special Protective Equipment for Firefighters | : | Self-contained breathing apparatus.   |
| Unusual fire and explosive Hazard             | : | None  |
| Products of decomposition                     | : | Fumes, carbon dioxide and smoke.  |
| Flash Point                                   | : | > 100 <sup>0</sup> C (ASTM D92)   |
| Upper Explosion Limit (UEL)                   | : | 15.3 % (V)  |
| Lower Explosion Limit (LEL)                   | : | 3.2 % (V)   |
| NFPA Hazard Id                                | : | Health: 0 ; Flammability: 1 ; Reactivity: 0   |
| Advice for firefighters                       | : | Proper protective equipment including chemical resistant gloves are to be worn; chemical Resistant suit is indicated if excessive contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant standards. |

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## 6. Accidental Release Measures

|   |   |  |
|---|---|--|
| Personal precautions  | : | See Section 8.   |
| Procedure is material is released or spilled                  | : | Report spills/releases as required to appropriate authorities.   |
| Methods for cleaning up resistant and Containment regulation. | : | Absorb on fire-retardant treated sawdust, diatomaceous earth, etc. Shovel up with spark utensils for later disposal. Dispose at an approved facility in accordance with laws and regulation. |
| Environmental precautions                                     | : | Prevent spill from entering municipal sewers, water sources or low lying areas. Advise the Relevant authorities if contaminations have occurred.   |
| Additional Advice   | : | Local authorities should be advised if significant spillages cannot be contained.  |

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## 7. Handling & Storage

|                     |   |   |
|---------------------|---|---|
| Safe Handling       | : | Avoid prolonged repeated skin contact.<br>Avoid ingestion.<br>Avoid inhalation of vapours or mists.           |
| Storage Information | : | Do not store in unlabelled containers.<br>Do not store near combustible materials or strong oxidising agents. |

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## 8. Exposure Control / Personal Protection

### Occupational Exposure Limits (OELs)

| Components | CAS-No | Source | TWA | Value | Notation |
|------------|--------|--------|-----|-------|----------|
|------------|--------|--------|-----|-------|----------|

|                 |          |           |      |                       |        |         |
|-----------------|----------|-----------|------|-----------------------|--------|---------|
| Ethylene Glycol | 107-21-1 | ACGIH TLV | STEL | 100 mg/m <sup>3</sup> | 40 ppm | Ceiling |
|                 |          | OSHA PEL  | LTEL | 51 mg/m <sup>3</sup>  | 20 ppm |         |
|                 |          |           | STEL | 127 mg/m <sup>3</sup> | 50 ppm | Ceiling |
|                 |          |           | LTEL | 63 mg/m <sup>3</sup>  | 25 ppm |         |

LTEL: Long Term Exposure Limits – Time Weight Average (TWA) over 8 hours.

STEL: Short Term Exposure Limits – Time Weight Average (TWA) over 15 minutes.

Note: Limits Shown for guidance only. Follow applicable regulations.

### Personal Protection Equipment (PPE)

|                          |   |   |
|--------------------------|---|---|
| Engineering controls     | : | Use in a well-ventilated area.  |
| Respiratory protection   | : | Approved respiratory equipment must be used when mist concentrations exceed the recommended exposure limits and inhaling of mists and vapours is likely.  |
| Eye protection           | : | If splash with liquid is possible, chemical type goggles should be worn.  |
| Skin and body protection | : | No special equipment required. However, if frequent splashing or liquid contact is likely to occur, wear impervious gloves and clothing. Good personal hygiene practices should always be followed. |

## 9. Physical & Chemical Properties

|                             |   |   |
|-----------------------------|---|---|
| Appearance                  | : | Liquid  |
| Colour                      | : | Fluorescent Yellow/Pink                                   |
| Odour                       | : | Characteristic  |
| Water Solubility            | : | Miscible  |
| Melting point/range         | : | -30 <sup>o</sup> C  |
| Boiling point/range         | : | > 165 <sup>o</sup> C                                      |
| Flash Point                 | : | > 100 <sup>o</sup> C                                      |
| Upper Explosion Limit (UEL) | : | 15.3 % (V)  |
| Lower Explosion Limit (LEL) | : | 3.2 % (V)   |
| Density                     | : | 1.068 g/cm <sup>3</sup> @ 20 <sup>o</sup> C (ASTM D-4052) |
| Autoignition Temperature    | : | > 200 <sup>o</sup> C                                      |
| Pour Point                  | : | -18 <sup>o</sup> C  |

## 10. Stability & Reactivity

|                                    |   |  |
|------------------------------------|---|--|
| Reactivity                         | : | The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.             |
| Chemical Stability                 | : | No hazardous reaction is expected when handled and stored according to provisions.   |
| Possibility of hazardous reactions | : | Reacts with strong oxidising agents.   |
| Stability                          | : | Stable.  |
| Conditions to avoid                | : | Extremes of temperature and direct sunlight.   |
| Materials to avoid                 | : | Strong oxidising agents.   |
| Hazardous Decomposition Products   | : | Fumes, smoke, carbon monoxide, sulphur oxides, aldehydes and other decomposition products, in the case of incomplete combustion. |

## 11. Toxicological Information

|                               |   |   |
|-------------------------------|---|---|
| Acute oral toxicity           | : | (Rats): Toxic (LD50: Less than 250 mg/kg). Based on testing of similar products and/or components.              |
| Acute Dermal Toxicity testing | : | (Rabbits): Practically non-toxic (LD50: greater than 2000 mg/kg). Based on a single dose at 2000 mg/kg.         |
| Acute Inhalation Toxicity     | : | (Rats): Toxic (LD50: greater than 2 but less than 5 mg/l or less). Based on testing products and/or components. |
| Skin Irritation               | : | (Rabbits): Practically non-irritating.  |

|                          |   |  |
|--------------------------|---|--|
| Eye Irritation           | : | (Rabbits): Irritant. (Draize score: greater than 15 but less than 35). Based on testing of similar products and/or the components.   |
| Repeated Dose Toxicity   | : | Small quantities of ethylene glycol ingested, inhaled or absorbed through the skin repeatedly over a prolonged period of time may result in systemic toxic effects. Rats fed 1-2 percent ethylene glycol for 2 years suffered severe kidney and liver damage and bladder stones. Inhalation studies for 2 years at 100 ppm with 7 species of animals did not result in any adverse effects other than respiratory irritation.  |
| Toxicity to reproduction | : | Ethylene glycol, when administered orally to pregnant rats at 2250 mg/kg/day caused some Malformations of the offspring.<br>The NOEL was 1250 mg/kg/day. No developmental or teratological effects were observed in rabbits administered 2000 mg/kg/day orally. Aerosols of 2500 mg/m3 during organogenesis resulted in teratogenic effects in mice but not rats. Nose-only exposure of mice to aerosols of 1000 mg/m3 resulted in developmental effects but minimal teratogenic effects. The NOEL based on maternal toxicity was 500 mg/m3. When applied to the skin of rats during organogenesis no teratogenic effects were observed. Although these effects are not known to occur in humans, measures of precaution should be taken to avoid exposure during pregnancy. |
| Mutagenicity             | : | Ames test: Negative. Mouse Lymphoma (L5178y/TK +/-) Assay: Positive.   |
| Carcinogenicity          | : | No carcinogenic where observed in animals when they were either injected with the solvent or fed at 1% in the diet for 2 years.<br>Carcinogenic effects are not known to occur in humans exposed to ethylene glycol.   |
| Additional Information   | : | Orally, ethylene glycol is more toxic to human than animal test data indicates. The probable lethal dose for and adult is ± 100 ml. Smaller doses can cause serious kidney injury.   |

## 12. Ecological Information

### Ecotoxicity Effects

|                               |   |   |
|-------------------------------|---|---|
| Toxicity to fish              | : | (Leuciscus idus) LC/EC50: > 100 mg/l at 96 hours. |
| Toxicity to aquatic organisms | : | (Daphnia magna) LC/EC50: > 100 mg/l at 48 hours.  |

### Persistence & Degradability

|                              |   |  |
|------------------------------|---|--|
| Bioaccumulation              | : | Does not bio-accumulate.                                 |
| Biodegradability             | : | Readily biodegradable.                                   |
| Physio-Chemical removability | : | Soluble in water.  |
| Additional Information       | : | AOX: This product contains no organically bound halogen. |

## 13. Disposal Considerations

|                               |   |   |
|-------------------------------|---|---|
| <b>Waste disposal</b>         | : | It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.  |
| <b>Contaminated Packaging</b> | : | Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not Pressurize, cut, weld, braze, solder etc. or expose such containers to heat, flames, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.. |
| <b>Other regulation</b>       | : | Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity, or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP).  |
| Flash Point                   | : | > 100°C (ASTM D-92)   |

## 14. Transportation Information

Note : This product is not regulated by the following: CFR and IATA.

**ADR**  
UN number : 3082  
Class : 9  
Packing group : III  
Labelling Number : 9

**IMDG**  
UN number : 3082  
Class : 9  
Packing group : III  
Labelling Number : 9

## 15. Regulatory Information

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

US OSHA Hazard : Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous.  
EU Labelling : Product is dangerous as defined by the European Union Dangerous Substances/Preparations Directives.  
Symbols : Xn  
Harmful  
R-Phrase(s) : R22, R63  
Harmful if swallowed. Possible risk of harm to the unborn child.  
S-Phrase(s) : S2  
Keep out of the reach of children.

### SARA

U.S. Superfund Amendments And Reauthorization Act SARA Title III : This products contains no "Extremely Hazardous Substance"

SARA (311/312) Reportable Hazard Categories : Chronic Acute

SARA (313) Toxic Release Chemicals : Ethylene Glycol (107-21-1) – Conc. > 90%.

The following product ingredients are cited on the lists below:

| Chemical Name           | CAS-No.    | Concentration % | List Citations                        |
|-------------------------|------------|-----------------|---------------------------------------|
| Ethylene Glycol         | 107-21-1   |                 | 1, 10, 18, 19, 20, 21, 23, 24, 25, 26 |
| Sodium 2-ethylhexanoate | 19766-89-3 |                 | Not Listed                            |

Regulatory List Searched

|               |               |               |             |             |
|---------------|---------------|---------------|-------------|-------------|
| 1 = ACGIH ALL | 6 = IARC 1    | 11 = TSCA 4   | 17 = CA P65 | 22 = MI 293 |
| 2 = ACGIH A1  | 7 = IARC 2A   | 12 = TSCA 5a2 | 18 = CA RTK | 23 = MN RTK |
| 3 = ACGIH A2  | 8 = IARC 2B   | 13 = TSCA 5e  | 19 = FL RTK | 24 = NJ RTK |
| 4 = NTP CARC  | 9 = OSHA CARC | 14 = TSCA 6   | 20 = IL RTK | 25 = PA RTK |
| 5 = NTP SUS   | 10 = OSHA Z   | 15 = TSCA 12b | 21 = LA RTK | 26 = RI RTK |

## 16. Other Information

MSDS Version Number : 1.0  
MSDS Effective Date : 01.05.2017

Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. The information provided on this MSDS reflects the intended use of the product. This product should not be used for any other application except for the intended use.

**INJECTION INJURY WARNING:** If product is injected into or under the skin, or into and part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a doctor as a surgical emergency.

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