

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name: COOLING SYSTEM FLUSH

Other means of identification

Common Name: 2000
UN/ID No Not Regulated
Synonyms None
Product Categories Automotive Coolant System Cleaner

Recommended use of the chemical and restrictions on use

Sale and Use Restrictions Not applicable
Recommended Use Restricted to professional users.
Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address
 ACEL, LLC.
 6826 Hill Park Dr. Suite #100
 Lorton, VA 22079

Emergency telephone number

Company Phone Number ACEL, LLC. (888) 801-2507
Emergency Telephone CHEMTREC 1-800-424-9300


2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

Label elements

Emergency Overview

<p>Warning</p> <p>Hazard statements Causes skin irritation Causes severe eye irritation</p> <div style="text-align: center; margin: 10px 0;">  </div> <p>Appearance Aqueous solution Physical state Liquid Odor Mild</p>		
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Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Specific treatment (see response statements below and Section 4 of the Safety Data Sheet)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Hazards not otherwise classified (HNOC)**Other information**

11.16 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %	Trade Secret
Triammonium citrate	3458-72-8	10-20	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures****Skin contact**

Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/ attention.

Inhalation

If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing stops, get medical attention immediately.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.

Ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed**Symptoms**

Skin irritation, Eye irritation, Respiratory irritation.

Indication of any immediate medical attention and special treatment needed**Self-protection of the first aider**

Avoid contact with skin.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media:**

Use dry chemical, CO₂, water spray (fog) or alcohol resistant foam.

Small Fire

Dry chemical or CO₂.

Large Fire

Water spray or fog, Alcohol resistant foam.

Explosive properties:

Not an explosive.

Specific hazards arising from the chemical

The product causes irritation of eyes, skin and mucus membranes.

Hazardous combustion products Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Ammonia.

Specific methods:**Sensitivity to Mechanical Impact** None.**Sensitivity to Static Discharge** None.**Special firefighting procedures:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin and eyes. Ensure adequate ventilation. Avoid dust formation. See Section 8 for information on appropriate personal protective equipment.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions: Do not let product enter drains. Avoid subsoil penetration.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for clean-up: Ventilate the area. Avoid dust formation. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to state, local, federal regulations. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling: Do not get in eyes, on skin, or on clothing. Keep only in the original container in a cool, well-ventilated place. Avoid prolonged or repeated contact with skin. Avoid formation of dust and aerosols.

Conditions for safe storage, including any incompatibilities

Technical measures/precautions: Local exhaust. Eye wash and safety shower should be easily accessible.

Materials to avoid: Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies:

Components	ACGIH TLV	OSHA Exposure Limits:	NIOSH IDLH
Triammonium citrate 3458-72-8	-	Not established	-

Appropriate engineering controls

Engineering measures: Ensure adequate ventilation. Eye wash and safety shower should be easily accessible.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection	Wear normal work clothing. Chemical resistant gloves. (consult with the specific manufacturer to confirm performance).
Respiratory protection	No personal respiratory protective equipment normally required. Dried product, Effective dust mask. Recommended Use: N95 (US), P1 (EN143). Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Use personal protective equipment as required. Avoid contact with eyes, skin and clothing. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing and wash it before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Mild
Appearance	Aqueous solution	Odor threshold	No information available
Color	Pale Yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.6 - 7.1	
Melting point/freezing point	< 0 °C / 32 °F	
Boiling point / boiling range	> 100 °C / 212 °F	
Flash point	No information available . / .	Not applicable
Evaporation rate	Slower than ether	Slower than ether
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No Data Available	
Lower flammability limit	No Data Available	
Vapor pressure	No Data Available	
Vapor density	Heavier than air	
Specific Gravity	1.06	
Water solubility	Soluble in water	
Solubility in other solvents	No Data Available	
Partition coefficient	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Kinematic viscosity	No information available	
Dynamic viscosity	No Data Available	
Explosive properties	No Data Available	
Oxidizing properties	No Data Available	

Other information

Softening point	No Data Available
Molecular weight	No Data Available
VOC Content (%)	
VOC Content (%)	Negligible
Density	1.06 g/cc
Bulk density	No Data Available

10. STABILITY AND REACTIVITY

Reactivity

Reactivity Stable: Stable under normal conditions.

Chemical stability

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

No information available.

Incompatible materials

Materials to avoid: Strong oxidizing agents.

Hazardous Decomposition Products

Hazardous Decomposition Products Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Ammonia.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Causes skin irritation. Causes severe eye irritation.

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Eye contact Causes severe eye irritation. Avoid contact with eyes.

Skin Contact May be harmful if absorbed through skin. Causes skin irritation.

Ingestion May be harmful if swallowed.

Components	Oral LD50	Dermal LD50	Inhalation LC50
Triammonium citrate 3458-72-8	-	-	-

Information on toxicological effects**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Sensitization No information available.

Mutagenic effects: No data available to indicate product or any components present at or greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC, NTP, or OSHA.

Reproductive toxicity No information available.

STOT - single exposure Not classified.

STOT - repeated exposure Not classified.

Chronic toxicity No information available.

Subchronic toxicity No information available.

Target Organ Effects Eyes, Skin, Respiratory system.

Neurological effects No information available.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 11.16 % of the mixture consists of ingredient(s) of unknown toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

No Data Available.

12.27 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

Bioaccumulative potential.

Mobility

Soluble in water.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes** Dispose of in accordance with federal, state and local regulations.**Contaminated packaging** Do not reuse container. Dispose of in accordance with federal, state and local regulations.**14. TRANSPORT INFORMATION****DOT** Not regulated**IATA** Not regulated**IMDG** Not regulated**15. REGULATORY INFORMATION****International Inventories****Legend:***TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List***Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Components	CAS Number	Weight %	SARA 313 - Threshold Values %
Triammonium citrate 3458-72-8	3458-72-8	10-20	1.0 % de minimis concentration

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

State Regulations (RTK)

California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA Rating

Health hazards 2

Flammability 0

Instability 0

Physical and Chemical Properties -

HMIS Rating

Health hazards 2

Flammability 0

Physical hazards 0

Personal protection B

Prepared by

Environmental Health and Safety Department

Issue Date

02-17-2017

Revision Date

02-17-2017

Revision Note

This data sheet contains changes from the previous version in section(s): 5,6,8

Disclaimer

The information provided in this Material 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.

End of Safety Data Sheet