



SAFETY DATA SHEET

Issue Date 01-31-2018

Revision Date 01-31-2018

Version 3

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

Product identifier

Product Name: COOLING-SYSTEM FAST FLUSH

Other means of identification

Common Name: 0109
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
MOC PRODUCTS CO., INC.
12306 Montague Street
Pacoima, CA 91331

Emergency telephone number

Company Phone Number MOC PRODUCTS CO., INC. (818) 794-3500
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****Warning****Hazard statements**

Causes skin irritation

Causes severe eye irritation

**Appearance** Aqueous solution**Physical state** Liquid**Odor** Mild**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

Chemical Name	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 to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. Call a physician or Poison Control Center 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.
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Indication of any immediate medical attention and special treatment needed

Self-protection of the first aider	Avoid contact with skin.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

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

Small Fire	Dry chemical or CO ₂ .
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.
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For emergency responders	Use personal protection recommended in Section 8.
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Environmental precautions

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

Chemical Name	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.

Chemical Name	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
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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:

Chemical Name	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:

Chemical Name	CAS Number	California Proposition 65
Formaldehyde	50-00-0	Carcinogen
1,4-Dioxane	123-91-1	Carcinogen
Ethylene oxide	75-21-8	Carcinogen Developmental Female Reproductive Male Reproductive
Acetaldehyde	75-07-0	Carcinogen

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 01-31-2018
Revision Date 01-31-2018
Revision Note

This data sheet contains changes from the previous version in section(s): 4, 15.

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