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Version 3

SAFETY DATA SHEET

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

Product identifier

Product Name: COOL OFF™

Other means of identification

Common Name: 0142
UN/ID No Not Regulated
Synonyms None
Product Categories Automotive Coolant, Additive

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

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Emergency Overview

Appearance Aqueous solution, Alkaline	Physical state Liquid	Odor Bland, Mild Ammoniacal
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Precautionary Statements - Response

Hazards not otherwise classified (HNOC)

Other information

45.45 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %	Trade Secret
Ethylene Glycol	107-21-1	1-10	*

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

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

General advice	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Skin contact	Immediately flush skin with plenty of water for at least 15 (30 or 60) minutes. Remove contaminated clothing and shoes. Thoroughly clean shoes before reuse. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes for at least 15 minutes. Get medical attention.
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with head facing down. Call for emergency services immediately.

Most important symptoms and effects, both acute and delayed

Symptoms Skin irritation, Eye irritation, Drowsiness, Dizziness.

Indication of any immediate medical attention and special treatment needed

Self-protection of the first aider Low hazard for usual industrial or commercial handling.

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

Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

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. Use personal protective equipment. See Section 8 for information on appropriate personal protective equipment.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions: Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system. Do not let product enter drains.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sewers, waterways or groundwater.

Methods for clean-up: 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.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

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. Keep away from any incompatible materials (See Section 10).

Conditions for safe storage, including any incompatibilities

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

Materials to avoid: Strong acids and strong bases; Strong oxidizing agents, Aldehydes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA Exposure Limits:	NIOSH IDLH
Ethylene Glycol 107-21-1	Ceiling: 100 mg/m ³ aerosol only	125 mg/m ³ (50 ppm)	-

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 Not required under normal use. Ensure adequate ventilation. A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. 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	Bland, Mild Ammoniacal
Appearance	Aqueous solution, Alkaline	Odor threshold	No information available
Color	Yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	9.0-10.0	
Melting point/freezing point	< 0 °C / 32 °F	(based on components)
Boiling point / boiling range	> 100 °C / 212 °F	(based on components)
Flash point	> 111 °C / 232 °F	(based on components)
Evaporation rate	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	1.07	
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 (%)	5.0
Density	1.07 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

Keep out of reach of children.

Incompatible materials

Materials to avoid: Strong acids and strong bases; Strong oxidizing agents, Aldehydes.

Hazardous Decomposition Products

Hazardous Decomposition Products Carbon dioxide (CO₂), Carbon monoxide, Aldehydes, Ketones, Organic acids, Hydrocarbons, Nitrogen oxides (NO_x), Ammonia.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	WARNING: Harmful or fatal if swallowed. May cause eye irritation. May cause skin irritation.
Inhalation	In high concentrations: May be harmful if inhaled. Avoid breathing vapors or mists.
Eye contact	May cause irritation: redness, stinging and tearing.
Skin Contact	May cause irritation: Prolonged contact may cause redness and irritation. May cause burns.
Ingestion	May be harmful if swallowed. Contains .?, Ethylene Glycol (CAS#107-21-1): Ingestion may include inebriation, nausea and vomiting, metabolic acidosis, and CNS depression. Tachycardia, hypertension, hyperventilation hypoxia and renal failure are also possible.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene Glycol 107-21-1	= 4700 mg/kg (Rat)	=10,626 mg/kg (Rabbit)	-

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	Ethylene Glycol (CAS#107-21-1): Laboratory experiments have shown teratogenic effects. Experiments have shown reproductive toxicity effects on laboratory animals.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Chronic toxicity	Prolonged skin contact may defat the skin and produce dermatitis.
Subchronic toxicity	No information available.
Target Organ Effects	Liver, Kidney, Eyes, Skin, Central nervous system, Brain.
Neurological effects	May affect the central nervous system causing dizziness, headache or nausea.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	45.45 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	10000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

45.45 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethylene Glycol 107-21-1	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41000: 96 h Oncorhynchus mykiss mg/L LC50 14 - 18: 96 h Oncorhynchus mykiss mL/L LC50 static 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 40000 - 60000: 96 h Pimephales promelas mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static		46300: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

Soluble in water.

Chemical Name	Partition coefficient
Ethylene Glycol 107-21-1	-1.36

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 %
Ethylene Glycol 107-21-1	107-21-1	1-10	1.0 % de minimis concentration

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
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, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylene Glycol 107-21-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

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
Ethylene Glycol	107-21-1	Developmental
Diethanolamine	111-42-2	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 1

Flammability 1

Instability 0

Physical and Chemical Properties -

HMIS Rating

Health hazards 2*

Flammability 1

Physical hazards 0

Personal protection B

Chronic Hazard Star Legend

** = Chronic Health Hazard*

Prepared by

Environmental Health and Safety Department

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Revision Note

This data sheet contains changes from the previous version in section(s): 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