

Material Safety Data Sheet

Section 1-Chemical product and company identification

Trade name: ABRO COOLING SYSTEM FLUSH / RADIATOR FLUSH

RF-505-AM-RE **Effective Date:** 2022-01-26

MSDS#:2022012653

Manufacturer/Supplier: ABRO INDUSTRIES, INC.

3580 Blackthorn Court South Bend, IN 46628, USA

COMPANY PHONE: +574-232-8289

Emergency Information: Chemtrec: US/Canada 1-800-424-9300

International +1-703-527-3887

Section 2 - Composition / Information on Ingredients

ITME	Ingredient Name	CAS Number	% vol
01	2,2',2"-nitrilotriethanol Citrate	29340-81-6	40-60
02	Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate	3012-65-5	20-30%
03	Citric Acid	77-92-9	10-20%

Section 3 - Hazards Identification

EMERGENCY OVERVIEW :

Vapors irritating to eyes and respiratory tract. Vapors may cause flash fire or explosion.

EFFECTS OF OVEREXPOSURE - EYE CONTACT:

Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT:

Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

EFFECTS OF OVEREXPOSURE - INHALATION:

Headaches, dizziness, nausea, decreased blood pressure, changes in heart rate and cyanosis may result from over-exposure to vapor or skin exposure. Prolonged inhalation may be harmful.

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EFFECTS OF OVEREXPOSURE - INGESTION: This material may be harmful or fatal if swallowed. Corrosive and may cause severe and permanent damage to mouth, throat and stomach.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure may cause nervous system damage. Overexposure may cause lung damage. Overexposure may cause kidney damage.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION INGESTION EYECONTACT

Section 4 - First aid measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

FIRST AID - SKIN CONTACT: Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: Get medical attention immediately. If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Section 5 - Fire-Fighting Measures

Flash Point: not available

Flash Point Method:

Burning Rate: not determined

Autoignition Temperature: not available

Lower Flammable Limit (LFL): not available

Upper Flammable Limit (UFL): not available

Flammability Classification: not determined

Extinguishing Media: Dry chemical, foam, carbon dioxide and water

General Fire Hazards: This product is combustible at high temperatures. Toxic fumes, gases or vapors may evolve on burning.

Hazardous Combustion Products: Carbon monoxide and carbon dioxide.

Fire-Fighting Equipment/Instructions: Use water spray to cool fire-exposed containers and as a protective screen. Wear full set of protective equipment including chemical goggles and gloves.

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Section 6 - Accidental Release Measures

Containment Procedures: Contain the discharge material. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

Clean-Up Procedures: Attempt to reclaim the free product, if this is possible. If molten product spilled, solidify and recover.

Evacuation Procedures: Isolate area. Keep unnecessary personnel away.

Special Instructions: Avoid inhalation of fumes from molten product. Avoid skin contact with molten resins. Wear appropriate protective equipment and clothing during clean-up. Do not allow the spilled product to enter public drainage systems or open water courses.

Section 7 - Handling and Storage

Procedures for Handling: Avoid breathing fumes if this product is used at high temperatures. Keep away from potential sources of ignition. Wash hands after handling and before eating.

Recommended Storage Methods: Keep the container tightly closed and in a cool, well-ventilated place. Store away from strong oxidizers. Do not store this material in open and unlabeled containers.

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines:

A. General Product Information - If oil mists are generated, observe the OSHA exposure limit of 5 mg/m³.

B. Component Exposure Limits - No ACGIH, NIOSH or OSHA exposure guidelines listed for the product's components.

Engineering Controls: Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

Eye / Face Protection: Wear safety goggles or faceshield when working with melted material.

Skin Protection: Chemically resistant gloves with thermal protection when working with melted paraffin.

Respiratory Protection: Under normal conditions, respirator is not normally required.

General: Use good industrial hygiene practices.

Section 9 - Physical and Chemical Properties

Physical State: liquid

Appearance: blue liquid with shampoo odor

Odor: odourless

Odor Threshold: not available

Vapor Pressure: 2.34kpa (20°C)

Vapor Density (Air=1): not determined

Specific Gravity (H₂O=1): 1.008

Water Solubility: soluble

Boiling Point: >= 100°C

Melting Point: <= 0°C

% Volatile: <10

Evaporation Rate: slow

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pH:>7.0

Section 10 - Stability and Reactivity

Chemical Stability: Stable

Hazardous Polymerization: Hazard polymerization will not occur.

Chemical Incompatibilities: Strong oxidizing agents (peroxides, chlorine, and acids).

Conditions to Avoid (Stability): Avoid excessive heat and all sources of ignition.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide.

Section 11- Toxicological Information

Acute Toxicity / Target Organ Information:

A. General Product / Component Information - This material is typically inert. Paraffin fumes are a result of overheating product. Fumes are known to be mildly irritating to the nose, throat, and eyes.

B. Component LD50 / LC50 - No data available for product.

Epidemiology: No data available for product.

Carcinogenicity:

A. General Product / Component Information - Not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

B. Component Carcinogenicity Listings - None of this product's components are listed by ACGIH, IARC, NIOSH, NTP or OSHA.

Teratogenicity / Reproductive Effects: No data available for the product as a whole.

Neurotoxicity: No data available for the product as a whole.

Mutagenicity: No data available on this product as a whole.

Other Information: No other information available.

Section 12 - Ecological Information

Ecotoxicity: No information is available on ecotoxicity of this product. Keep product out of sewers and waterways.

Environmental Fate: No information is available.

Section 13 - Disposal Considerations

U.S. EPA Waste Number & Descriptions:

A. General Product Information - Product as shipped does not meet the definition or characteristics of a hazardous waste.

B. Component Waste Numbers - No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions:

Incinerate the material under controlled conditions in an approved incinerator.

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Section 14 - Transport Information

Proper Shipping Name: N/A

Hazard Class: N/A

DOT ID No.: N/A

Packing Group: N/A

DOT Shipping Label: N/A

Additional Shipping Information: N/A

NU NUMBER: N/A

Section 15 - Regulatory Information

U.S. Federal Regulatory Information:

A. General Product Information - All components of this product are listed on the U.S. EPA TSCA Inventory.

B. Component Information - None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) or CERCLA (40 CFR 302.4).

State Regulations:

A. General Product Information - No components require labeling under California Proposition 65.

B. Component Information - None of this product's components are listed on the state lists from CA, FL, MA, MN, NJ, or PA.

Other Regulations:

A. General Product Information - All known (non-proprietary) components of this product are listed on the EINECS inventory of existing chemicals.

B. Component Information - None of this product's components are listed on the Canadian Controlled Product Ingredient Disclosure List.

Section 16 - Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages