

MATERIAL SAFETY DATA SHEET



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: ArrowCool SYN-722 Synthetic Coolant
Chemical Family: Synthetic Coolant

Company Identification: Chem Arrow Corporation
13643 Live Oak Lane
Irwindale, CA 91706
United States of America
www.chemarrow.com
Telephone (626) 358-2255
Fax (626) 359-8190

Transportation Emergency Response: Chem Tel Inc.
Telephone (800) 255-3924

Product Information:

SECTION 2: HAZARDOUS INGREDIENTS

COMPONENTS	CAS Number	OSHA PEL	ACGIH TLV
Triethanol Amine	102-71-6	5mg/m ³	5mg/m ³
Monoethanol Amine	141-43-5	3 ppm	3 ppm
Isonononic Acid	3302-10-1	N/E	N/E

SECTION 3: HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS

Eye: This product may cause eye irritation.
Skin: Repeated or prolonged contact may cause irritation.
Ingestion: Oral LD 50 has not been established. Do not ingest.
Inhalation: TLV for this product has not been established.

SECTION 4: FIRST AID MEASURES

Eye: Flush with water for at least 15 minutes. If irritation develops seek medical attention.
Skin: Cleanse the affected areas with soap and water. If redness or irritation develops, seek medical attention.
Ingestion: Seek medical attention.
Inhalation: If inhalation occurs, move the exposed person to fresh air. Avoid further inhalation and seek medical attention.

SECTION 5: FIRE FIGHTING MEASURES

FIRE CLASSIFICATION: OSHA Classification (29 CFR 1910.1200)
Not classified by OSHA as flammable.

NFPA RATINGS: Health: 1 Flammability: 0 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: N/A°C (N/A °F)
Autoignition: No data available.
Flammability (Explosive) Limits (% by volume in air): Lower: Not Applicable Upper: Not Applicable

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: This material will burn. For fires involving this material, do not enter any enclosed or confined fire space without protective equipments including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and other organic compounds will be evolved when the material undergoes combustion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Follow Local, State and Federal authority's regulations for reporting spills.

SECTION 7: HANDLING AND STORAGE

General Handling Information: Avoid contaminating soil or releasing this product into sewage, drainage system and bodies of water.

Static Hazard: Electrostatics charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and containing filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS: Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS: Use in a well ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Nitrile Rubber, Silver Shield, Viton.

Respiratory Protection: No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Attention: The data below are typical values and do not constitute a specification.

Color: Blue
Physical State: Liquid
Odor: Mild
pH of Concentrate: 8.5 ± 1.0
Vapor Pressure: N/A
Vapor Density (Air = 1): N/A
Boiling Point: 212°F
Solubility: Water
Freezing Point: 32°F
Specific Gravity: 1.05
Volatile Organic Compounds (VOC): 6%
Viscosity: N/A
Evaporation Rate: N/A
Density: 8.7 Lbs/Gal

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Incompatibility With Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products: None known (None expected).
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: Data has not been established.
Skin Irritation: Data has not been established.
Skin Sensitization: The skin sensitization hazard data has not been established.
Acute Dermal Toxicity: LD 50 has not been established.
Acute Oral Toxicity: Oral LD 50 has not been established.
Acute Inhalation Toxicity: Toxicity hazard data has not been established.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: No data has been established.

ENVIRONMENTAL FATE

Ready Biodegradability: This material is not expected to be readily biodegradable.

SECTION 13: DISPOSAL CONSIDERATION

Follow Local, State and Federal regulations regarding disposal.

SECTION 14: TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: N.O.I.B.N.; NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR.

IMO/IMDG Shipping Description: NOT REGULATED AS DANGEROUS GOODS.

ICAO/IATA Shipping Description: NOT REGULATED AS DANGEROUS GOODS.

SECTION 15: REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES:	1	Immediate (Acute) Health Effects:	No
	2	Delayed (Chronic) Health Effects:	No
	3	Fire Hazard:	No
	4	Sudden Release of Pressure Hazard:	No
	5	Reactivity Hazard:	No

SECTION 16: OTHER INFORMATION

NFPA RATINGS: Health: 1 Flammability: 0 Reactivity: 0

HMIS: Health: 1 Flammability: 0 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE-Personal Protection Equipment Index recommendation,* Chronic Effect Indicator). These values are contained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association) for HMIS ratings).

REVISION STATEMENT: The revision updates the following sections of this Material Safety Data Sheet:

REVISION DATE: June 11, 2009

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.