



SINOPEC
Environmentally Friendly Coolant
YF-2A



Material Safety Data Sheet

Not classified as hazardous

1. PRODUCT IDENTIFICATION

Product Name	SINOPEC L-DAB Environmentally Friendly Coolant YF-2A
Common Characteristics	Liquid can be dissolved in oil
Recommended Use	Heat transmission media for engine cooling systems.

2. COMPOSITION

Chemical Name	CAS Registry No.	Concentration %
	Proprietary Mixture	<20
	Proprietary Mixture	>80

3. HAZARDS INFORMATION

Hazard Classification	Not classified as hazardous The International Agency for Research on Cancer (IARC) has determined there is sufficient evidence for carcinogenicity in experimental animals of used oil. Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation.
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4. FIRST AID MEASURES

Eye	Flush with water for 15 minutes. If irritation occurs, get medical attention.
Skin	Flush skin with water, and then wash with soap and water. If irritation or pain persists or there is visible tissue damage, get medical attention. If material is injected under the skin, seek medical attention immediately.
Inhalation	Remove victim to fresh air and provide oxygen. Get medical attention.
Ingestion	Do not induce vomiting unless recommended by physician. Get medical attention.
Note to Physician	Cure according to symptoms.

5. FIRE FIGHTING MEASURES

NFPA Classification	Class IIIB
Extinguishing Media	Use carbon dioxide, dry chemical or foam.
Hazards from Combustion	Under fire conditions, this product may emit toxic and/or irritating fumes including nitrogen oxides, carbon oxides, sulfur oxides and inorganic and organic compounds.
Product Specific Hazards	Combustible liquid. This product will readily burn under fire conditions. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to prevent exposure to vapor or fumes.
Protection of Firefighter	
Extinguishing Method	Spray Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.
Hazardous Combustion Products	
Forbidden Media	Water

6. ACCIDENTAL RELEASE MEASURES

Protective Measures	Take care of your own safety before attempting any cleanup. Wear appropriate protective equipment when cleaning up spills.
Spill Management	Comply with all local laws and regulations
	Contain spill and remove with vacuum truck or pump to storage/salvage vessels. In outdoor environments, seek professional cleanup advice.
FOR LARGE SPILLS:	
	Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.
FOR SMALL SPILLS:	

7. HANDLING AND STORAGE

Storage	Do not store in open or unlabeled containers. Store in cool, dry place with adequate ventilation. Keep away from open flame, sparks and high temperature.
	Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat or flame. Empty containers may contain residues that could ignite under force and severe conditions.
Empty Container Warning	

7. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Controls	Provide adequate ventilation to control airborne concentrations below the exposure guidelines/limits.
	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, a NIOSH-approved organic vapor respirator with a dust/mist prefilter, in accordance with OSHA requirements (29 CFR 1910.134) must be worn.
Respiratory Protection	
Eye Protection	Chemical goggles or safety glasses with side shields.
Hand Protection	Use protective gloves that are chemically resistant to material.
Personal Protection	Use protective clothing and shoes which are chemically resistant to this material.
	Wash hands and exposed areas with soap and water before eating, drinking, smoking, using the facilities or after contact with product.
Note to Sanitation	
Occupational Exposure Guidelines	

Substance	Acceptable Workplace Exposure Levels	
Oil Mist, Mineral	ACGIH (United States)	TWA: 5mg/m ³ 8 hour(s)
		STEEL: 10mg/m ³ 15 minute(s)
	OSHA (United States)	TWA: 5mg/m ³ 8 hour(s)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Melting Point	No data available
Color	Reddish Pink	Boiling Point	No data available
Odor	No peculiar smell	Solubility in Water	Negligible
		Vapor Pressure	No data available
		Flash Point	>204°C
		pH	8.5

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of storage and handling
Conditions to Avoid	Extreme heat and high energy sources of ignition

Materials Incompatibility	Strong oxidizing agents and strong acids
Hazardous Decomposition Products	Under fire conditions this product may emit toxic and/or irritating fumes including nitrogen oxides, carbon oxides, sulfur oxides and inorganic organic compounds.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	ORAL TOXICITY (LD50)	Acute: >5000mg/kgBW Rats. Based on testing of similar products and/or components.
	INHALATION TOXICITY (LD50)	Acute: >10000mg/m3 Rats. Based on testing of similar products and/or components.

12. ECOLOGICAL INFORMATION

Ecological Information	Through long time infiltration, it may product ecological toxicity.
Mobility	Floats on water. When released into the environment, absorption to sediment and soil will be the predominant behavior.
Persistence and Degradability	This product is expected to be inherently biodegradable.
Bio accumulative Potential	Bioaccumulation is unlikely due to the very low water solubility of product, therefore bioavailability to aquatic organisms is minimal, although oil spills can mother and suffocate aquatic life by preventing oxygen into the water. Oil contamination can foul and smother birds and marine animals. Do not discharge this material into waterways, drains and sewer.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	Disposal, transportation, storage and/or treatment of spilled or waste material must be done in accordance RCRA regulations [40CFR 260 - 40CFR 271]. Check with state and/or local laws for further restrictions. Do not puncture, cut or weld empty containers.
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14. TRANSPORT INFORMATION

Land (DOT)	Not regulated as a hazardous material by the Department of Transportation.
Land (TDG)	Not regulated as a hazardous material by the Department of Dangerous Goods.
Sea (IMDG)	Not regulated as a hazardous material by the International Maritime Dangerous Goods Code.
Air (IATA)	Not regulated as a hazardous material by the International Air Transportation Association.

15. REGULATORY INFORMATION

OSHA Hazard	Not considered as hazardous in accordance to OSHA 29 CFR 1910.1200.
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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.