



Advanced Chemical Technology, Inc.

CS-400

SAFETY DATA SHEET

Version 1.0
Effective Date: 06/01/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CS-400-(Color)-(percent Ethylene Glycol)

Description: Heat Transfer Fluid
Suggested Use: Industrial Water Treatment
Restrictions on Use: Do not mix with other industrial chemicals.

Supplier: Advanced Chemical Technology, Inc.
8728 Utica Avenue
Rancho Cucamonga, CA 91730

Telephone: 1-909-980-4556 or 1-800-527-9607
Fax: 1-909-980-9366

Emergency Phone: 1-800-255-3924 (CHEMTEL)

2. HAZARDS IDENTIFICATION

Classification

GHS Classification: Serious Eye Irritation (Category 2A)

GHS Label Elements

Pictogram:



Signal Word: Warning

Hazard Statements: H316: Causes mild skin irritation
H319: Causes serious eye irritation

Precautionary Statements: P264: Wash hands thoroughly after handling.
P 273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention/advice.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P501 - Dispose of contents/container to comply with local, state and federal regulations.

HMIS Classification: Health Hazard: 1
Flammability: 1
Physical Hazards: 0

NFPA Rating: Health Hazard: 1
Fire: 1
Reactivity Hazard: 0

Potential Health Effects



Inhalation:	It is possible to breath this material under certain conditions (during heating, spraying or stirring). Small amounts during normal use are not likely to be harmful. Breathing large amounts may be harmful
Skin:	May cause mild skin irritation. Symptoms include redness or burning of the skin. A single prolonged exposure is unlikely to result in harmful quantities being absorbed.
Eyes:	Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of the eyes.
Ingestion:	May cause gastrointestinal irritation. Do not ingest.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>Concentration</u>
Ethylene Glycol Synonyms:	107-21-1	1-99%

4. FIRST AID MEASURES

If Inhaled:	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin Contact:	Take off contaminated clothing and shoes immediately. Flush skin with plenty of water for at least fifteen minutes.
Eye Contact:	Flush eyes with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses if able to do so.
If Ingested:	This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning (Half-life of Ethylene glycol is 3 days)

5. FIREFIGHTING MEASURES

Flammability Overview:	Considered a non-flammable water solution
Flash Point:	Not Applicable
Extinguishing Media:	Use water-spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Tailor extinguishing media to surrounding fire.
Special Protective Equipment for Firefighters:	Wear a self-contained breathing apparatus (SCBA) for firefighting if necessary.
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, ammonia, and oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Avoid breathing vapors, mist, or gas. Always ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Prevent from entering drains and waterways. Discharge into the environment must be avoided.
Containment and Clean Up:	Soak up with inert absorbent material and dispose of as hazardous waste. Keep



in suitable, closed containers for disposal. If assistance is needed call CHEMTEL or emergency services.

7. HANDLING AND STORAGE

Safe Handling: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Always ensure adequate ventilation.

Safe Storage: Keep containers tightly closed in a dry well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	CAS Number	Exposure Limit	Basis
Ethylene Glycol	107-21-1	100mg/m ³	ACGIH Threshold Value (TWA) (mg/m ³)
		50ppm	OSHA PEL (TWA) (mg/m ³)

Personal Protective Equipment

Eye Protection: Wear tightly fitting safety goggles or safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH. Have eye-wash stations available where eye contact can occur.

Hand Protection: Handle with chemical-resistant gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves. Wash and dry hands after use.

Skin Protection: Protect skin by wearing pants, close toe shoes and long sleeves. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Safety showers should be located in the work area where skin contact can occur.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a NIOSH-approved full-face respirator with appropriate cartridges. For oxygen deficient atmospheres, use a NIOSH approved air-supplied respirator. Respiratory protection may be needed for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

General Controls: Always ensure adequate ventilation and that working areas contain safety showers and eye wash stations. Handle material in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: P-Pink, B-Blue, G-Green, Y-Yellow, N-Clear
Odor: Bland
Odor Threshold: Not Established
pH: 11.5



Melting/Freezing Point:	-60 - 32°F
Boiling Point:	212-387 °F
Flash Point:	>200 °F
Evaporation Rate:	Not Established
Flammability (solid, gas):	Not Established
Flammability/Explosion Limits:	Lower: 3.2 Upper 15.3
Vapor Pressure @ 20°C:	< 0.1 mmHg
Vapor Density:	Not Established
Specific Gravity:	1.00-1.12
Density:	Not Established
Solubility in Water:	Complete
Partition Coefficient:	Not Established
Autoignition Temperature:	Not Established
Decomposition Temperature:	Not Established
Viscosity:	Not Established

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under recommended storage conditions. Do not store under 50 °F.
Conditions and Materials to Avoid:	Extreme heat. Do not mix with other industrial chemicals.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, ammonia, and oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	CAS Number	Test	Toxicity
Ethylene Glycol	107-21-1	Oral LD50 (Rat)	Not Established
		Skin	Not Established
		Inhalation LC50-1H (Rat)	Not Established

Potential Health Effects

Inhalation:	It is possible to breath this material under certain conditions (during heating, spraying or stirring). Small amounts during normal use are not likely to be harmful. Breathing large amounts may be harmful
Skin:	May cause mild skin irritation. Symptoms include redness or burning of the skin. A single prolonged exposure is unlikely to result in harmful quantities being absorbed.
Eyes:	Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of the eyes.
Ingestion:	May cause gastrointestinal irritation. Do not ingest.
Signs and Symptoms of Exposure:	Not Established
Chronic Effects of Long-term Exposure:	Not Established



Carcinogenicity: No component of this product at levels greater than 0.1% is identified as carcinogenic by IARC, ACGIH, or OSHA.

12. ECOLOGICAL INFORMATION

Acute Ecotoxicity

Component	CAS Number	Organism	Ecotoxicity
Ethylene Glycol	107-21-1	Not Established	Not Established

Ecological Effects

Persistence and Degradability: This product is potentially biodegradable

Bioaccumulation Potential: Not expected to bio-accumulate

Mobility in Soil: Not Established

Other Adverse Effects: Not Established

13. DISPOSAL CONSIDERATIONS

Disposal: Surplus and non-recyclable material should be treated as hazardous waste and be disposed of by a licensed disposal company. Material should be disposed in accordance with all local, state, and federal regulations. Regulations vary by region. Do not release into sewers or waterways.

Contaminated Packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT Information

Proper Shipping Name: Non-Regulated Water Treatment Compound

UN Number:

Hazard Class:

Packing Group:

Reportable Quantity (RQ):

Marine Pollutant:

Note:

15. REGULATORY INFORMATION

US Federal

SARA 302 Components: None Listed
SARA 311/312 Hazards: Immediate. Delayed
SARA 313 Components: This product contains a Section 313 listed toxic chemical subject to release



reporting requirements (Sodium nitrite, 10,000 lbs.)

TSCA Inventory: None Listed

European Union

EC Inventory: None Listed

State Regulations

CA Prop 65: Contains a detectable residual of ethylene oxide, which is known to the State of California to cause cancer and/or reproductive toxicity.

16. OTHER INFORMATION

SDS Version: 1.0
Revision Date: 06/01/2015
Disclaimer:

The information contained in this document was carefully compiled and is believed to be accurate. The information represents the present state of our knowledge and is applicable to the product with the regard to appropriate safety precautions. However, it does not represent any guarantee of the properties of the product. Advanced Chemical Technology, Inc. shall not be held liable for any damages resulting from handling or from contact with the above product. It is the responsibility of the purchaser to determine the suitability of the product for their particular purposes. Nothing contained herein shall be construed to be a recommendation to use, or as a license to operate under, or to infringe any existing patents.

For product information call Advanced Chemical Technology, Inc., 1-909-980-4556