

Safety Data Sheet

1. Product and Company Identification

1.1 Product Identifiers

Product Name: Heat-Transfer Fluid
Product Numbers: 3DA811
Manufacturer/Supplier: Advanced Instruments, Inc.

1.2 Product Use

Identified Uses: Heat-Transfer Fluid is an effective heat transfer media that transfers energy from the test sample to the cooling system within the osmometer and cryoscope instruments. Used in a closed loop, the liquid flows from a reservoir to the cooling well, then returns to the reservoir.

1.3 Details of the Supplier of the Safety Data Sheet

Company: Advanced Instruments, Inc.
2 Technology Way
Norwood, MA 02062, USA
USA

Telephone Number: 1-781-320-9000
Email Address: orders@aicompanies.com

1.4 Emergency Telephone Number

Emergency Phone Number: 1-877-740-5015 - Rocky Mountain Poison & Drug Center (24 hours)

2. Hazards Identification

2.1 Classification of the Substance or Mixture

Not a hazardous substance or mixture.

2.2 GHS Label Elements, Including Precautionary Statements

No pictogram
Signal Word: Warning
Hazard statement: May be harmful if swallowed.
Precautionary statements: Wear protective gloved, eye protection, protective clothing.
If Swallowed: Rinse mouth with water.
If on Skin: Wash off with soap and plenty of water.
If Inhaled: Remove to fresh air.
If in Eyes: Flush eyes with water as a precaution.
Dispose of contents/container to comply with local, state, and federal regulations.

2.3 Hazards Not Otherwise Classified (HNOC) or Not Covered By GHS

None

3. Composition/Information on Ingredients

3.1 Components

Name: Propylene Glycol
Formula: $C_3H_8O_2$
CAS #: 57-55-6
Percent: < 50%

Name: Sodium Hypochlorite
Formula: NaClO
CAS #: 7681-52-9

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Percent: < 0.1%

Name: Water
Formula: H₂O
CAS #: 7732-18-5
Percent: > 50%

No ingredients are hazardous according to OSHA criteria.
No components need to be disclosed according to the applicable regulations.

4. First Aid Measures

4.1 Description of First Aid Measures

- 4.1.1** Eyes: Rinse thoroughly with plenty of water for at least 15 minutes.
4.1.2 Inhalation: Remove to fresh air.
4.1.3 Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth out with water.
4.1.4 Skin: Wash off with soap and plenty of water.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and or section 11.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available.

5. Firefighting Measures

5.1 Extinguishing Media

Water spray, alcohol-resistant foam, dry chemical powder, or carbon dioxide.

5.2 Special Hazards Arising from the Substance or Mixture

No data available.

5.3 Fire Fighting Procedures

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information

No data available.

6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. For personal protection see section 8.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

Soak up with inert absorbent material and dispose of in compliance with local, state, and country regulations.

6.4 Reference to Other Sections

For disposal see section 13.

7. Handling and Storage

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- 7.1 Precautions for Safe Handling**
For precautions see section 2.2.
- 7.2 Conditions for Safe Storage, Including Any Incompatibilities**
Keep containers tightly closed. Store at room temperature.
- 7.3 Specific End Use(s)**
Apart from the use in section 1.2, no other specific uses have been determined.

8. Exposure Controls/Personal Protection

8.1 Control Parameters

8.1.1 Components with Workplace Control Parameters

Component	CAS-No.	Value	Control Parameters	Basis
Propylene Glycol	57-55-6	TWA	10 mg/m ³	USA. Workplace Environmental Exposure Levels (WEEL)

8.2 Exposure Controls

8.2.1 Appropriate Engineering Controls

Handle with accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

8.3 Personal Protective Equipment

Eye/Face Protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under the appropriate government standards, such as NIOSH (US) or EN166 (EU).

8.3.1 Skin Protection

Handle with gloves. Gloves must be inspected prior to use. Use the proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

8.3.2 Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

8.3.4 Respiratory Protection

Respiratory protection is not required.

8.3.5 Control of Environmental Exposure

Do not let product enter drains.

9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

- | | |
|----------------------------------|------------------------------------|
| a) Appearance: | Form: Clear, Liquid
Color: Blue |
| b) Odor: | Not available |
| c) Odor Threshold: | Not available |
| d) pH: | Not available |
| e) Melting Point/Freezing Point: | Not available |

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f) Initial Boiling Point and Boiling Range:	Not available
g) Flash Point:	Not available
h) Evaporation Rate:	Not available
i) Flammability:	Not available
j) Upper/Lower Flammability Limits:	Not available
k) Vapor Pressure:	Not available
l) Vapor Density:	Not available
m) Relative Density:	Not available
n) Water Solubility:	Soluble
o) Partition Coefficient (n-octanol/water):	Not available
p) Auto-ignition Temperature:	Not available
q) Decomposition Temperature:	Not available
r) Viscosity:	Not available
s) Explosive Properties:	Not available
t) Oxidizing Properties:	Not available

9.2 Other Safety Information Not available

10. Stability and Reactivity

10.1 Reactivity Not available

10.2 Chemical Stability Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions Not available

10.4 Conditions to Avoid Not available

10.5 Incompatible Materials Strong oxidizing agents and acids.

10.6 Hazardous Decomposition Products Not available In the event of a fire, see section 5.

11. Toxicological Information

11.1 Information on Toxicological Effects

11.1.1 Acute Toxicity Not available

Inhalation: Not available
Dermal: Not available

11.1.2 Skin Corrosion/Irritation Not available

11.1.3 Serious Eye Damage/Eye Irritation Not available

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11.1.4 Respiratory or Skin Sensitization

Not available

11.1.5 Germ Cell Mutagenicity

Not available

11.1.6 Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by OSHA.

11.1.6 Reproductive Toxicity

Not available

11.1.7 Specific Target Organ Toxicity - Single Exposure

Not available

11.1.8 Specific Target Organ Toxicity - Repeated Exposure

Not available

11.1.9 Aspiration Hazard

Not available

11.1.10 Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information

12.1 Toxicity

Not available

12.2 Persistence and Degradability

Not available

12.3 Bioaccumulative Potential

Not available

12.4 Mobility in Soil

Not available

12.5 Results of PBT and vPvB Assessment

Assessment not required/not conducted.

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- 12.6 Other Adverse Effects**
Not available

13. Disposal Considerations

- 13.1 Waste Treatment Methods**
- 13.2 Product**
Always contact a permitted waste disposal site (TSD) to assure compliance with all local, state, and country regulations.
- 13.3 Contaminated Packaging**
Dispose of as unused product.
- 13.4 Other**
Not available

14. Transportation Information

- 14.1 DOT (US)**
Not dangerous good
- 14.2 IMDG**
Not dangerous good
- 14.3 IATA**
Not dangerous good

15. Regulatory Information

- 15.1 U.S. Federal Regulations**
- 15.1.1 Toxic Substances Control Act (TSCA)**
CAS # 57-55-6 is listed in the TSCA inventory..
- 15.1.2 Clean Water Act (CWA)**
This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by the Clean Water Act.
- 15.1.3 Clean Air Act (CAA)**
This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by the Clean Air Act.
- 15.1.4 REACH No.**
A registration number is not available for this substance.
- 15.1.5 SARA 302 Components**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- 15.1.6 SARA 313 Components**
This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.
- 15.1.7 SARA 311/312 Hazards**
No SARA Hazards

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15.2 International Regulations

15.2.1 Canadian Environmental Protection Act (CEPA)

All of the components of this product are included on the Canadian Domestic Substances List (DSL).

15.2.2 Canadian Workplace Hazardous Materials Information System (WHMIS)

No chemicals in this material are subject to the reporting requirements of WHMIS.

15.2.3 European Chemicals Agency (ECHA)

No chemicals in this material are subject to the reporting requirements of ECHA.

16. Other Information

16.1 National Fire Protection Association (NFPA) Ratings

Health:	2
Flammability:	1
Reactivity:	1

16.2 Further Information

Advanced Instrument, Inc. provides the information contained herein in good faith. but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. Advanced Instruments will not be responsible for damages resulting from the use of or reliance upon this information.