

## Material Safety Data Sheet

### **SECTION 1 – IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY**

**Product Name:** Heat Transfer Fluid  
**Product Number(s):** 3DA811  
**Manufacturer/Supplier:** Advanced Instruments, Inc.  
Two Technology Way  
Norwood, MA 02062  
1-781-320-9000

**Origin:** USA

**Date of Issue:** 2013-04-09

**Chemical Identification(s):** Propylene Glycol, Sodium Hypochlorite

**Intended Use:** Heat Transfer Fluid is an efficient heat transfer media that transfers thermal energy from the test sample to the cooling system within the osmometer instrument. Used in a closed loop, the liquid flows from a reservoir to the cooling well, then returns to the reservoir.

### **SECTION 2 – HAZARDS IDENTIFICATION**

#### Health

##### **Routes of Entry:**

Inhalation, ingestion, or skin contact.

##### **Health Hazards:**

Irritating on contact with skin, eyes, mucous membranes, or upper respiratory tract.

##### **Carcinogenicity:**

None indicated

##### **Symptoms of Exposure (chronic):**

Lactic acidosis, stupor, and seizures have been reported following chronic ingestion.

##### **Medical Conditions Aggravated by Exposure:**

Kidney disorders

### **SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS**

##### **Component:**

Propylene Glycol

##### **CAS #:**

57-55-6

##### **Synonyms:**

1,2-Propanediol

##### **Percent:**

<50%

##### **Component:**

Sodium Hypochlorite

##### **CAS #:**

7681-52-9

##### **Synonyms:**

Bleach

##### **Percent:**

<0.1%

### **SECTION 4 – FIRST AID MEASURES**

##### **Emergency and First Aid Procedures:**

SEEK MEDICAL ASSISTANCE IN ALL CASES OF OVEREXPOSURE.

##### **Eyes:**

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

##### **Skin:**

In case of contact, immediately wash skin with soap and copious amounts of water.

##### **Inhalation:**

If inhaled, remove to fresh air.

**Ingestion:**

If conscious, drink water and induce vomiting immediately as directed by medical personnel.

## **SECTION 5 – FIRE FIGHTING MEASURES**

**Flash Point (°F):**

210°F

**Flammable Limits:**

LEL: 2.6

UEL: 12.5

**Extinguishing Media:**

Water spray, carbon dioxide, dry chemical powder, or appropriate foam

**Fire Fighting Procedures:**

Wear self-contained breathing apparatus and protective clothing.

**Fire and Explosion Hazards:**

Containers may explode in heat or fire.

## **SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**Spill Response:**

Wear suitable protective equipment listed under Section 8, Exposure Controls/Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if it can be done without risk. Clean up and place in closed container for proper disposal as described under, Section 13, Disposal Considerations. Comply with local, state, and country regulations on reporting releases. Refer to Section 15, Regulatory Information, for regulatory data.

## **SECTION 7 – HANDLING AND STORAGE**

Keep container tightly closed. Store at controlled room temperature. Do not get in eyes, on skin, or on clothing.

## **SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:**

Adequate ventilation is required. Protective gloves must be worn to prevent skin contact (Neoprene or equivalent).

Safety glasses with side shields must be worn at all times.

**Work/Hygienic Practices:**

Wash hands thoroughly after handling. Do not take internally. Eyewash and safety equipment should be readily available.

## **SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:**

Blue Oily Liquid

**Boiling Point:**

188.2°C (370°F)

**Specific Gravity (H<sub>2</sub>O = 1):**

1.0361 @ 20°C/4°C

**Melting Point (°C):**

-59°C (-74°F)

**Evaporation Rate (BuAc = 1):**

0.01

**Vapor Pressure (mm Hg):**

0.129 @ 25°C (77°F)

**Vapor Density (AIR = 1):**

2.6

**Volatility:**

No information found.

**Solubility in Water (%):**

Miscible in water

## **SECTION 10 – STABILITY AND REACTIVITY**

**Stability:**

Stable

**Conditions to Avoid:**

Sources of light

**Materials to Avoid:**

Strong oxidizing agents and acids

**Hazardous Decomposition:**

Carbon dioxide and carbon monoxide

**Hazardous Polymerization:**

Will not occur.

## **SECTION 11 – TOXICOLOGICAL INFORMATION**

**Symptoms of Exposure:**

Ingestion is harmful and may be fatal. Irritating on contact with skin, eyes, mucous membranes, or upper respiratory tract.

**Medical Conditions Aggravated by Exposure:**

None indicated.

**Routes of Entry:**

Inhalation, ingestion, or skin contact.

**Carcinogenicity:**

None indicated.

**Toxicity Data:**

None indicated.

**Toxicological Findings:**

None indicated.

## **SECTION 12 – ECOLOGICAL INFORMATION**

When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into water, this material is expected to readily biodegrade. When released into the air, this material is expected to be readily degraded by reaction with photo chemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.

## **SECTION 13 – DISPOSAL CONSIDERATIONS**

**EPA Waste Numbers:**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**Treatment:**

Specified Technology – Contact your local permitted waste disposal site (TSD) for permissible treatment sites.

ALWAYS CONTACT A PERMITTED WASTE DISPOSAL SITE (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE, AND COUNTRY REGULATIONS.

**Other:**

Abfallschlüsselnummern in Austria (ÖNORM S2100): 59305

## **SECTION 14 – TRANSPORTATION INFORMATION**

**DOT Proper Shipping Name:**

Not regulated as a hazardous material.

**DOT ID Number:**

Not available.

## **SECTION 15 – REGULATORY INFORMATION**

**U.S. Federal**

**TSCA:**

CAS # 57-55-6 is listed on the TSCA inventory.

**Health & Safety Reporting List:**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules:**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b:**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule:**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and Corresponding RQs:**

None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances:**

None of the chemicals in this product have a TPQ.

**Section 313:**

No chemicals are reportable under Section 313.

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**State:**

CAS #57-55-6 can be found on the following state right-to-know lists: Pennsylvania, Minnesota.

**European/International Regulations**

**Hazard Symbols:**

None available.

**Safety Phrases:**

S 24/25: Avoid contact with skin and eyes.

**WGK (Water Danger/Protection):**

CAS #57-55-6: 0

**Canada - DSL/NDSL:**

CAS #57-55-6 is listed on Canada's DSL List.

**Canada - WHMIS:**

This product has a WHMIS classification of Not Controlled. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations, and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List:**

CAS #57-55-6 is listed on the Canadian Ingredient Disclosure List.

**SECTION 16 – OTHER INFORMATION**

**Comments:**

Goggles; lab coat; vent hood; proper gloves

**NFPA Hazard Ratings:**

Health: 2 - Moderate (Life)

Flammability: 1 - Slight

Reactivity: 1 - Slight

Special Hazards: 1 - Slight

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