


**MATERIAL SAFETY DATA SHEET**  
**Antifrogen SOL HT**

Substance key: 000000324944  
 Version : 1 - 4 / USA

Revision Date: 10/28/2009  
 Date of printing :08/10/2010

**Section 01 - Product Information**

<b>Identification of the company:</b>	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000	 Distributed by <b>HUBBARD-HALL INC.</b>	Waterbury, CT 06708    203/754-2171 Inman, SC 29349    864/472-9031 W. Springfield, MA 01099    413/747-0789 Wilmington, MA 01887    978/968-0077
<b>Information of the substance/preparation:</b>			
Product Safety 1-704-331-7710			
<b>Emergency tel. number:</b> +1 800-424-9300 CHEMTREC			

**Trade name:** Antifrogen SOL HT  
**Primary product use:** Product for solar installations  
**Chemical family:** Mixture of higher boiling glycols with corrosion inhibitors

**Section 02 - Composition information on hazardous ingredients**

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Sodium-2-ethylhexanoate	19766-89-3	< 1.5 %

**Section 03 - Hazards identification**

**Emergency overview:** Liquid  
 May cause eye and skin irritation.  
 May cause respiratory irritation.

**Expected Route of entry:**

- Inhalation:** May cause respiratory tract irritation.
- Skin contact:** May cause skin irritation.
- Eye contact:** May cause eye irritation.
- Ingestion:** Not expected to be toxic.
- Skin absorption:** yes

**Health effects of exposure:**

Hexanoic acid, 2-ethyl, sodium salt ( 19766-89-3 )  
 Adverse reproductive effects have been reported in animals.

**Known effects on other illnesses:** None known.

**Listed carcinogen:** IARC: No  
 NTP: No  
 OSHA: No  
 Other: No

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Health: 1\*

Flammability: 1

Reactivity: 0

Personal protection: D

**Section 04 - First aid measures****After inhalation:**

Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

**After contact with skin:**

Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

**After contact with eyes:**

Flush thoroughly with water for 15 minutes. Get immediate medical help.

**After ingestion:**

Seek medical attention immediately.

**Advice to doctor / Treatment:**

None known.

**Section 05 - Fire fighting measures****Flashpoint:** Not flammable (water-based)**Lower explosion limit:** not tested.**Upper explosion limit:** not tested.**Self ignition:** Not applicable**Ignition temperature:** approx. 788 °F  
Method: DIN 51794**Hazardous combustion products:**

In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)

**Extinguishing media:** Product itself is non-combustible; Fire extinguishing method of surrounding areas must be discussed.**Special fire fighting procedure:**

Use self-contained breathing apparatus and full protective clothing.

**Section 06 - Accidental release measures****Steps to be taken in case of spill or leak:**

Contain spill. Ensure adequate ventilation and wear appropriate personal protective equipment. Collect onto inert absorbent. Place in sealable container. Do not allow to contaminate water sources or sewers.

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Use only with adequate ventilation and proper protective eyewear, gloves, and clothing.  
Wash thoroughly after handling.

**Section 08 - Exposure controls / personal protection**

<b>Respiratory protection:</b>	If airborne concentrations pose a health hazard, become irritating, or exceed recommended limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements under 29CFR1910.134.
<b>Hand protection:</b>	Butyl rubber or nitrile.
<b>Eye protection:</b>	Chemical splash goggles.
<b>Other protective equipment:</b>	Clothing suitable to prevent skin contact.

**Section 09 - Physical and chemical properties**

<b>Form:</b>	Liquid
<b>Color:</b>	blue-green
<b>Odor:</b>	slightly perceptible
<b>pH:</b>	approx. 9 Determined in the undiluted form
<b>Solubility in water:</b>	(20 °C) soluble
<b>Soluble in ... :</b>	fat not tested.
<b>Density:</b>	approx. 1.08 g/cm <sup>3</sup> (20 °C) Method: DIN 51757
<b>Melting point :</b>	approx. -18 °F Method: DIN 51583
<b>Boiling temperature :</b>	approx. 221 °F Method: ASTM D 1120
<b>Vapor pressure:</b>	< 0.75 Torr (20 °C) Method: Calculated by Syracuse. Data relate to the main component
<b>Bulk density:</b>	Not applicable
<b>Relative vapor density:</b>	not tested.
<b>Partitioning coef. octanol/water:</b>	Not applicable
<b>Viscosity / (dynamic):</b>	approx. 8 mPa.s Method: calculated

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Method: DIN 51562**Section 10 - Stability and reactivity****Thermal decomposition:** approx. 204 °C  
Method: DSC  
Data indicate that decomposition starts on contact with air/oxygen. In the absence of air/oxygen, no decomposition occurs below a temperature of at least 300 °C.  
**Chemical stability:** Stable.  
**Hazardous Polymerization:** Will not occur.**Section 11 - Toxicological information****Product information:**  
**Acute oral toxicity:** LD50 > 5,000 mg/kg (rat)  
Method: OECD 423  
**Acute inhalation toxicity:** not tested.  
**Acute dermal toxicity:** not tested.  
**Skin irritation:** Not tested  
**Eye irritation:** Not tested**Section 12 - Ecological information****Section 13 - Disposal considerations****Waste disposal information:**  
Recommended disposal is by incineration in approved facilities.  
**RCRA hazardous waste:**  
No -- Not as sold.**Section 14 - Transport information****DOT** not restricted  
**IATA** not restricted  
**IMDG** not restricted**Section 15 - Regulatory information****TSCA Status:**  
All components of this product are listed on the TSCA Inventory.

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**SARA (section 311/312):**

Reactive hazard:	no
Pressure hazard:	yes
Fire hazard:	no
Immediate/acute:	no
Delayed/chronic:	yes

**SARA 313 information:**

This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.

**Clean Water Act:**

Contains no known priority pollutants at concentrations greater than 0.1%.

<b>Section 16 - Other information</b>
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**Label information:**

CAUTION!

MAY CAUSE IRRITATION TO EYES AND SKIN MAY CAUSE RESPIRATORY TRACT IRRITATION POSSIBLE REPRODUCTIVE HAZARD BASED ON TESTS WITH LABORATORY ANIMALS

Avoid breathing fumes, vapors, mists, or spray. Avoid contact with skin, eyes and clothing. Do not swallow. Use with adequate ventilation and/or approved respiratory protection. Wear proper protective equipment. Wash thoroughly after handling. Keep container closed when not in use.

Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Eye contact: flush with water for at least 15 minutes while holding eyelids open. Seek immediate medical attention. INGESTION: Seek medical attention immediately. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

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This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.