SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : K KOOL-P CLEAR
CAS No : 57-55-6
Product code : 30080

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Heat Transfer Fluid, Coolant, etc...

1.3. Details of the supplier of the safety data sheet

Interstate Chemical Company, Inc.
2797 Freedland Road
Hermitage, PA 16148-0210 - United States
T (724) 981-3771 - F (724) 509-1015
jwarren@interstatechemical.com - www.interstatechemical.com

1.4. Emergency telephone number

Emergency number : For 24-Hour Emergency Information Call Chemtrec: +1 (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)
Not classified

2.2. Label elements

GHS-US labeling
No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-propanediol</td>
<td>(CAS No) 57-55-6</td>
<td>90 - 100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Corrosion Inhibitors and pH Buffers</td>
<td>(CAS No) Trade Secret</td>
<td>1 - 10</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

| Unsuitable extinguishing media | Do not use a heavy water stream. |

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

| Firefighting instructions | Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | Do not enter fire area without proper protective equipment, including respiratory protection. |

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

| Emergency procedures | Evacuate unnecessary personnel. |

##### 6.1.2. For emergency responders

| Protective equipment | Equip cleanup crew with proper protection. |
| Emergency procedures | Ventilate area. |

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

| Methods for cleaning up | Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

| Precautions for safe handling | Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. |

#### 7.2. Conditions for safe storage, including any incompatibilities

| Storage conditions | Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. |
| Incompatible products | Strong bases. Strong acids. |
| Incompatible materials | Sources of ignition. Direct sunlight. |

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| K KOOL-P CLEAR (57-55-6) | ACGIH | Not applicable |
| OSHA | Not applicable |

| 1,2-propanediol (57-55-6) | ACGIH | Not applicable |
| OSHA | Not applicable |

| Corrosion Inhibitors and pH Buffers (Trade Secret) | ACGIH | Not applicable |
K KOOL-P CLEAR
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1,2-propanediol (57-55-6)

<table>
<thead>
<tr>
<th>Source</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.
Eye protection: Chemical goggles or safety glasses.
Respiratory protection: Wear appropriate mask.
Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear, colorless liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>8 - 9.5</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>-60 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>370 °F</td>
</tr>
<tr>
<td>Flash point</td>
<td>210 °F</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>700 °F</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.129 mm Hg at 77 degrees fahrenheit</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>2.6 (Air=1)</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.036</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>9.44 lb/gal at 60 degrees fahrenheit</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water:</td>
</tr>
<tr>
<td>Log Pow</td>
<td>-1.41 - -0.30</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.
10.5. Incompatible materials
Strong acids. Strong bases.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

<table>
<thead>
<tr>
<th>K KOOL-P CLEAR (57-55-6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>20000 mg/kg (Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>22500 mg/kg (Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>20800 mg/kg (Rabbit; Experimental value)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>20000.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>20800.000 mg/kg body weight</td>
</tr>
</tbody>
</table>

1.2-propanediol (57-55-6)

<table>
<thead>
<tr>
<th>1,2-propanediol (57-55-6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>20000 mg/kg (Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>22500 mg/kg (Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>20800 mg/kg (Rabbit; Experimental value)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>20000.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>20800.000 mg/kg body weight</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified
pH: 8 - 9.5

Serious eye damage/irritation : Not classified
pH: 8 - 9.5

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>K KOOL-P CLEAR (57-55-6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>51400 mg/l (96 h; Pimephales promelas)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>34400 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>51600 mg/l (96 h; Oncorhynchus mykiss)</td>
</tr>
</tbody>
</table>

1.2-propanediol (57-55-6)

<table>
<thead>
<tr>
<th>1.2-propanediol (57-55-6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>51400 mg/l (96 h; Pimephales promelas)</td>
</tr>
<tr>
<td>LC50 other aquatic organisms 1</td>
<td>&gt; 1000 mg/l (96 h)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>34400 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>51600 mg/l (96 h; Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>TLM fish 1</td>
<td>&gt; 1000 ppm (96 h; Pisces)</td>
</tr>
<tr>
<td>TLM other aquatic organisms 1</td>
<td>&gt; 1000 ppm (96 h)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 1</td>
<td>&gt; 1000 mg/l (96 h)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>15000 mg/l (336 h; Selenastrum capricornutum)</td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td>&lt; 5300 mg/l (336 h; Skeletonema costatum)</td>
</tr>
</tbody>
</table>
12.2. Persistence and degradability

**K KOOL-P CLEAR (57-55-6)**

**Persistence and degradability**

Not established.

**1,2-propanediol (57-55-6)**

**Persistence and degradability**

Readily biodegradable in water. Biodegradable in the soil.

**Biochemical oxygen demand (BOD)**

0.96 - 1.08 g O₂/g substance

**Chemical oxygen demand (COD)**

1.63 g O₂/g substance

**ThOD**

1.69 g O₂/g substance

**BOD (% of ThOD)**

0.57 % ThOD

12.3. Bioaccumulative potential

**K KOOL-P CLEAR (57-55-6)**

**Log Pow**

-1.41 - -0.30

**Bioaccumulative potential**

Not established.

**1,2-propanediol (57-55-6)**

**Log Pow**

-1.41 - -0.30

**Bioaccumulative potential**

Not bioaccumulative.

12.4. Mobility in soil

**1,2-propanediol (57-55-6)**

**Surface tension**

0.036 N/m (25 °C)

12.5. Other adverse effects

**Effect on ozone layer**

:

**Effect on the global warming**

: No known ecological damage caused by this product.

**Other information**

: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

**Waste disposal recommendations**

: Dispose in a safe manner in accordance with local/national regulations.

**Ecology - waste materials**

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not regulated for transport

**Additional information**

**Other information**

: No supplementary information available.

ADR

No additional information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

**1,2-propanediol (57-55-6)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2. International regulations**

**CANADA**
K KOOL-P CLEAR
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

EU-Regulations

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified

15.2.2. National regulations
No additional information available

15.3. US State regulations

1,2-propanediol (57-55-6)
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Abbreviations and acronyms:
- European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- European Agreement concerning the International Carriage of Dangerous Goods by Road
- Acute Toxicity Estimate
- Bioconcentration factor
- Classification Labelling Packaging Regulation
- Regulation (EC) No 1272/2008
- Derived Minimal Effect level
- Derived-No Effect Level
- Dangerous Preparations Directive 1999/45/EC
- Dangerous Substances Directive 67/548/EEC
- Median effective concentration
- International Agency for Research on Cancer
- International Air Transport Association
- International Maritime Dangerous Goods
- Median lethal concentration
- Median lethal dose
- Lowest Observed Adverse Effect Level
- No-Observed Adverse Effect Concentration
- No-Observed Adverse Effect Level
- No-Observed Effect Concentration
- Organisation for Economic Co-operation and Development
- Persistent Bioaccumulative Toxic
- Predicted No-Effect Concentration
- Regulations concerning the International Carriage of Dangerous Goods by Rail
- Safety Data Sheet
- Sewage treatment plant
- Median Tolerance Limit
- Very Persistent and Very Bioaccumulative

Other information:
None.

NFPA health hazard:
1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard:
0 - Materials that will not burn.

NFPA reactivity:
0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HMIS III Rating
Health:
1 Slight Hazard - Irritation or minor reversible injury possible

Flammability:
0 Minimal Hazard

Physical:
0 Minimal Hazard

Personal Protection:
B

SDS US (GHS HazCom 2012)

Interstate Chemical Company, 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 to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.