1. PRODUCT AND COMPANY IDENTIFICATION

Product Name 1-Bromoheptane
Cat No. AC107030000; AC107030010; AC107030050; AC107032500
Synonyms Heptylbromide
Recommended Use Laboratory chemicals

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Entity / Business Name
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number
For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number, US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview
Flammable liquid and vapor. Harmful by inhalation. Irritating to eyes, respiratory system and skin.

Appearance Clear Physical State Liquid odor No information available

Target Organs Skin, Respiratory system, Eyes

Potential Health Effects

Acute Effects

Principle Routes of Exposure
Eyes
Irritating to eyes.

Skin
Irritating to skin. May be harmful in contact with skin.

Inhalation
Harmful by inhalation. Irritating to respiratory system.

Ingestion
May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects
None known.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions
No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Haz/Non-haz</th>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heptane, 1-bromo-</td>
<td>629-04-9</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact**
Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

**Ingestion**
Do not induce vomiting. Call a physician or Poison Control Center immediately.

**Notes to Physician**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Flash Point**
60°C / 140°F

Method
No information available.

Autoignition Temperature
No information available.

Explosion Limits

<table>
<thead>
<tr>
<th></th>
<th>Upper</th>
<th>Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

**Suitable Extinguishing Media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.

**Unsuitable Extinguishing Media**
No information available.

**Hazardous Combustion Products**
No information available.

<table>
<thead>
<tr>
<th>Sensitivity to mechanical impact</th>
<th>No information available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity to static discharge</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
Specific Hazards Arising from the Chemical
Flammable. Risk of ignition. Containers may explode when heated. Keep product and empty container away from heat and sources of ignition.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions
Should not be released into the environment.

Methods for Containment and Clean Up
Soak up with inert absorbent material. Keep in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE

Handling
Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharges.

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures
Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment
Eye/face Protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State
Liquid

Appearance
Clear
9. PHYSICAL AND CHEMICAL PROPERTIES

- **Odor**: No information available.
- **Odor Threshold**: No information available.
- **pH**: No information available.
- **Vapor Pressure**: No information available.
- **Vapor Density**: No information available.
- **Viscosity**: No information available.
- **Boiling Point/Range**: 180°C / 356°F @ 760 mmHg
- **Melting Point/Range**: -58°C / -72.4°F
- **Decomposition temperature**: No information available.
- **Flash Point**: 60°C / 140°F
- **Evaporation Rate**: No information available.
- **Specific Gravity**: 1.140
- **Solubility**: No information available.
- **log Pow**: No data available.
- **Molecular Weight**: 179.1
- **Molecular Formula**: C7 H15 Br

10. STABILITY AND REACTIVITY

- **Stability**: Stable under normal conditions.
- **Conditions to Avoid**: Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.
- **Incompatible Materials**: Strong oxidizing agents, Strong bases
- **Hazardous Decomposition Products**: Carbon monoxide (CO), Carbon dioxide (CO₂)
- **Hazardous Polymerization**: Hazardous polymerization does not occur.
- **Hazardous Reactions**: None under normal processing.

11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity**: See actual entry in RTECS for complete information.
- **Component Information**

<table>
<thead>
<tr>
<th>Component Information</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heptane, 1-bromo-</td>
<td>Not listed</td>
<td>Not listed</td>
<td>12000 mg/m³ (Mouse) 2 h</td>
</tr>
</tbody>
</table>

- **Irritation**: Irritating to eyes, respiratory system and skin
- **Toxicologically Synergistic Products**: No information available.

- **Chronic Toxicity**

- **Carcinogenicity**: There are no known carcinogenic chemicals in this product
Sensitization  No information available.
Mutagenic Effects  No information available.
Reproductive Effects  No information available.
Developmental Effects  No information available.
Teratogenicity  No information available.
Other Adverse Effects  The toxicological properties have not been fully investigated.
Endocrine Disruptor Information  No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity
Do not empty into drains.

Persistence and Degradability  No information available
Bioaccumulation/Accumulation  No information available
Mobility  

<table>
<thead>
<tr>
<th>Component</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heptane, 1-bromo-</td>
<td>4.36</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods  Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT

<table>
<thead>
<tr>
<th>UN-No</th>
<th>Proper Shipping Name</th>
<th>Proper technical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1993</td>
<td>FLAMMABLE LIQUID, N.O.S.</td>
<td>(1-BROMOHEPTANE)</td>
</tr>
<tr>
<td></td>
<td>Hazard Class</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Packing Group</td>
<td>III</td>
</tr>
</tbody>
</table>

TDG

<table>
<thead>
<tr>
<th>UN-No</th>
<th>Proper Shipping Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1993</td>
<td>FLAMMABLE LIQUID, N.O.S.</td>
</tr>
<tr>
<td></td>
<td>Hazard Class</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
14. TRANSPORT INFORMATION

Packing Group

III

IATA

UN-No 1993

Proper Shipping Name FLAMMABLE LIQUID, N.O.S.*
Hazard Class 3
Packing Group III

IMDG/IMO

UN-No 1993

Proper Shipping Name Flammable liquid, n.o.s.
Hazard Class 3
Packing Group III

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSEL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>CHINA</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heptane, 1-bromo-</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>211-068-8</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Legend:

X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313
Not applicable

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Sudden Release of Pressure Hazard  
No
Reactive Hazard  
No

Clean Water Act  
Not applicable

Clean Air Act  
Not applicable

OSHA  
Not applicable

CERCLA  
Not Applicable

California Proposition 65  
This product does not contain any Proposition 65 chemicals.

State Right-to-Know  
Not applicable

U.S. Department of Transportation  
Reportable Quantity (RQ):  N
DOT Marine Pollutant  N
DOT Severe Marine Pollutant  N

U.S. Department of Homeland Security  
This product does not contain any DHS chemicals.

Other International Regulations  
Mexico - Grade  No information available

Canada  
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class  
B3  Combustible liquid
D1B  Toxic materials
D2B  Toxic materials

16. OTHER INFORMATION