SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification

Product Description: 3-Hexylthiophene
Cat No.: 367380000; 367380050; 367380250
CAS-No: 1693-86-3
Molecular Formula: C10 H16 S

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

Recommended Use: Laboratory chemicals.
Uses advised against: No Information available

1.3. Details of the supplier of the safety data sheet

Company
UK entity/business name: Fisher Scientific UK
Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom

EU entity/business name: Acros Organics BVBA
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium

E-mail address: begel.sdskdesk@thermofisher.com

1.4. Emergency telephone number

For information US: call: 001-800-ACROS-01 / Europe: call: +32 14 57 52 11
Emergency Number US: 001-201-796-7100 / Europe: +32 14 57 52 99
CHEMTREC: Tel. No. US: 001-800-424-9300 / Europe: 001-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards
Flammable liquids: Category 3 (H226)

Health hazards
Acute oral toxicity: Category 4 (H302)
Acute dermal toxicity: Category 4 (H312)
Acute Inhalation Toxicity - Vapors: Category 4 (H332)
Skin Corrosion/irritation: Category 2 (H315)
Serious Eye Damage/Eye Irritation: Category 2 (H319)
2.2. Label elements

**Signal Word**

**Warning**

**Hazard Statements**
- H226 - Flammable liquid and vapor
- H332 - Harmful if inhaled
- H315 - Causes skin irritation
- H335 - May cause respiratory irritation
- H302 - Harmful if swallowed
- H319 - Causes serious eye irritation
- H312 - Harmful in contact with skin

**Precautionary Statements**
- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell
- P304 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P280 - Wear protective gloves/protective clothing/eye protection/face protection

2.3. Other hazards

No information available

---

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>EC-No.</th>
<th>Weight %</th>
<th>CLP Classification - Regulation (EC) No 1272/2008</th>
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<tr>
<td>3-Hexylthiophene</td>
<td>1693-86-3</td>
<td></td>
<td>&gt;95</td>
<td>STOT SE 3 (H335)</td>
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<tr>
<td></td>
<td></td>
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<td></td>
<td>Skin Irrit. 2 (H315)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2 (H319)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (H332)</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (H302)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (H312)</td>
</tr>
</tbody>
</table>
4.1. Description of first aid measures

General Advice
If symptoms persist, call a physician.

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

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

Ingestion
Clean mouth with water and drink afterwards plenty of water.

Inhalation
Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

Self-Protection of the First Aider
Use personal protective equipment.

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

None reasonably foreseeable. Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician
Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

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

Extinguishing media which must not be used for safety reasons
No information available.

5.2. Special hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products
Carbon monoxide (CO), Carbon dioxide (CO₂), Sulfur oxides.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. 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. Take precautionary measures against static discharges.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSOAL PROTECTION

8.1. Control parameters

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

Biological limit values
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods
BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
MDHS70 General methods for sampling airborne gases and vapours
MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography
MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Derived No Effect Level (DNEL) No information available
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Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering Measures

Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

Eye Protection

Goggles (European standard - EN 166)

Hand Protection

Protective gloves

Skin and body protection

Long sleeved clothing

Inspect gloves before use. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly.

Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387

Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls

No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
9.1. Information on basic physical and chemical properties

Appearance: Colorless to pale yellow
Physical State: Liquid
Odor: No information available
Odor Threshold: No data available
pH: No information available
Melting Point/Range: No data available
Softening Point: No data available
Boiling Point/Range: 65 °C / 149 °F @ 0.4 mmHg
Flash Point: 37 °C / 98.6 °F Method - No information available
Evaporation Rate: No data available
Flammability (solid, gas): Not applicable
Explosion Limits: No data available
Vapor Pressure: No data available
Vapor Density: No data available (Air = 1.0)
Specific Gravity / Density: 0.936
Bulk Density: Not applicable
Water Solubility: No information available
Solubility in other solvents: No information available
Partition Coefficient (n-octanol/water): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Explosive Properties: No information available
Oxidizing Properties: No information available

9.2. Other information

Molecular Formula: C10 H16 S
Molecular Weight: 168.3

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
None known, based on information available

10.2. Chemical stability
No information available.

10.3. Possibility of hazardous reactions

Hazardous Polymerization: No information available.
Hazardous Reactions: None under normal processing.

10.4. Conditions to avoid

10.5. Incompatible materials

10.6. Hazardous decomposition products
Carbon monoxide (CO). Carbon dioxide (CO2). Sulfur oxides.
SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

(a) acute toxicity;
   Oral Category 4
   Dermal Category 4
   Inhalation Category 4

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;
   Respiratory No data available
   Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity;
   No data available
   There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; Category 3

(i) STOT-repeated exposure; No data available
   Target Organs No information available.

(j) aspiration hazard; No data available

Other Adverse Effects

The toxicological properties have not been fully investigated.

Symptoms / effects, both acute and delayed

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting delayed

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Do not empty into drains.

12.2. Persistence and degradability

Persistence No information available
   Persistence is unlikely, based on information available.
12.3. Bioaccumulative potential
Bioaccumulation is unlikely

12.4. Mobility in soil
The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air.

12.5. Results of PBT and vPvB assessment
No data available for assessment.

12.6. Other adverse effects

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<th>Persistent Organic Pollutant</th>
<th>Ozone Depletion Potential</th>
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<td>This product does not contain any known or suspected endocrine disruptors</td>
<td>This product does not contain any known or suspected substance</td>
<td>This product does not contain any known or suspected substance</td>
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</table>

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products
Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging
Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

European Waste Catalogue (EWC)
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Other Information
Waste codes should be assigned by the user based on the application for which the product was used. Do not dispose of waste into sewer. Can be incinerated, when in compliance with local regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

<table>
<thead>
<tr>
<th>14.1. UN number</th>
<th>UN1993</th>
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<tbody>
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<td>14.2. UN proper shipping name</td>
<td>FLAMMABLE LIQUIDS, N.O.S</td>
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<td>14.3. Transport hazard class(es)</td>
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<td>14.4. Packing group</td>
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ADR

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<td>3</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>III</td>
</tr>
</tbody>
</table>

| 14.5. Environmental hazards | No hazards identified |
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**14.6. Special precautions for user** No special precautions required

**14.7. Transport in bulk according to** Not applicable, packaged goods

Annex II of MARPOL73/78 and the IBC Code

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**SECTION 15: REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Inventories**

X = listed.

**National Regulations**

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

**15.2. Chemical safety assessment**

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

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**SECTION 16: OTHER INFORMATION**

**Full text of H-Statements referred to under sections 2 and 3**

H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H332 - Harmful if inhaled
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

**Legend**

<table>
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<tr>
<th>CAS</th>
<th>Chemical Abstracts Service</th>
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<tbody>
<tr>
<td>EINECS/ELINCS</td>
<td>European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Chemicals and Chemical Substances</td>
</tr>
<tr>
<td>IECSC</td>
<td>Chinese Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>KECL</td>
<td>Korean Existing and Evaluated Chemical Substances</td>
</tr>
<tr>
<td>WEL</td>
<td>Workplace Exposure Limit</td>
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<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No Effect Level</td>
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<tr>
<td>RPE</td>
<td>Respiratory Protective Equipment</td>
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<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
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<tr>
<td>NOEC</td>
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<td>PBT</td>
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<td>ADR</td>
<td>European Agreement Concerning the International Carriage of Dangerous Goods by Road</td>
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<tr>
<td>IMO/IMDG</td>
<td>International Maritime Organization/International Maritime Dangerous Goods Code</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
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<td>Key literature references and sources for data</td>
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</tbody>
</table>

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| TSCA              | United States Toxic Substances Control Act Section 8(b) Inventory |
| DSL/NDSL         | Canadian Domestic Substances List/Non-Domestic Substances List |
| ENCS             | Japanese Existing and New Chemical Substances |
| AICS             | Australian Inventory of Chemical Substances |
| NZIoC            | New Zealand Inventory of Chemicals |
| TWA              | Time Weighted Average |
| IARC             | International Agency for Research on Cancer |
| PNEC             | Predicted No Effect Concentration |
| LD50             | Lethal Dose 50% |
| EC50             | Effective Concentration 50% |
| POW              | Partition coefficient Octanol:Water |
| vPvB             | very Persistent, very Bioaccumulative |
| ICAO/IATA        | International Civil Aviation Organization/International Air Transport Association |
| MARPOL           | International Convention for the Prevention of Pollution from Ships |
| ATE              | Acute Toxicity Estimate |
| VOC              | Volatile Organic Compounds |
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Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice
Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.
Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.
First aid for chemical exposure, including the use of eye wash and safety showers.

Revision Date 26-Feb-2019
Revision Summary Not applicable.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet