1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Description: Tetrathiafulvalene
Cat No. 179410000; 179410010
Synonyms $72,2’-Bi-1,3-dithiole; TTF

Relevant identified uses of the substance or mixture and uses advised against
Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet
Company Acros Organics BVBA
Janssen Pharmaceuticaalana 3a
2440 Geel, Belgium
E-mail address begel.sdsdesk@thermofisher.com
Emergency Telephone Number
For information in the US, call: 001-800-ACROS-01
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
Emergency Number, US: 001-201-796-7100
CHEMTREC Phone Number, US: 001-800-424-9300
CHEMTREC Phone Number, Europe: 001-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
REGULATION (EC) No 1272/2008
Not hazardous

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the ‘R’ phrases mentioned in this Section, see Section 16
R -phrase(s) none

Label Elements
Signal Word None

Hazard Statements

Other Hazards
No information available.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>EC No.</th>
<th>Weight %</th>
<th>CAS-No</th>
<th>Classification</th>
<th>GHSCLAS</th>
<th>REACH Reg. No.</th>
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<tbody>
<tr>
<td>1,3-Dithiole, 2-(1,3-dithiol-2-ylidene)-</td>
<td>EEC No. 250-593-7</td>
<td>&gt; 99</td>
<td>31366-25-3</td>
<td>-</td>
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</tr>
</tbody>
</table>

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

**Description of 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 soap and plenty of water removing all contaminated clothes and shoes Obtain medical attention

**Ingestion**
Clean mouth with water Get medical attention

**Inhalation**
Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration Obtain medical attention

**Notes to Physician**
Treat symptomatically

5. FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable Extinguishing Media**
Water spray Carbon dioxide (CO₂) Dry chemical chemical foam

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

**Special hazards arising from the substance or mixture**
Thermal decomposition can lead to release of irritating gases and vapors

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

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Environmental precautions
Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up
Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Avoid contact with skin and eyes Do not breathe dust Do not breathe vapors or spray mist

Conditions for safe storage, including any incompatibilities
Keep in a dry, cool and well-ventilated place Keep container tightly closed Keep away from direct sunlight Keep under nitrogen

Specific End Uses

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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.

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

Exposure controls
Engineering Measures
Ensure adequate ventilation, especially in confined areas

Personal protective equipment
Eye Protection
Goggles

Hand Protection
Protective gloves

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

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

Environmental exposure controls
No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State
Powder, Solid

Appearance
Brown

pH
No information available.

Boiling Point/Range
No information available.

Melting Point/Range
117 - 120°C / 242.6 - 248°F

Flash Point
No information available.

Molecular Formula
C6 H4 S4
9. PHYSICAL AND CHEMICAL PROPERTIES
Molecular Weight 204.34

10. STABILITY AND REACTIVITY

Reactivity
Chemical Stability
Light sensitive. Air sensitive.

Possibility of Hazardous Reactions
Hazardous Polymerization No information available.
Hazardous Reactions No information available.

Conditions to Avoid
Exposure to air, Exposure to light, Incompatible products.

Incompatible Materials
Strong oxidizing agents.

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

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity
Product Information No acute toxicity information is available for this product

Component Information

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.
Target Organs No information available.
Endocrine Disruptor Information None known
12. ECOLOGICAL INFORMATION

Toxicity
Ecotoxicity effects
Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

Persistence and degradability
No information available

Bioaccumulative potential
No information available.

Mobility in soil
No information available.

Results of PBT and vPvB assessment
Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Waste from Residues / Unused Products
Dispose of in accordance with local regulations

Contaminated Packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO
Not regulated

ADR
Not regulated

IATA
Not regulated

15. REGULATORY INFORMATION

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

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>PICCS</th>
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</tr>
</tbody>
</table>
Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory Lists
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCs - Japan Existing and New Chemical Substances
CHINA - China Inventory of Existing Chemical Substances
AICS - Inventory of Chemical Substances
KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2-3
No information available.

Revision Date 10-Feb-2011
Revision Summary Not applicable
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text

End of Safety Data Sheet