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

Product Identifier
Product Description: Mercury(II) cyanide
Cat No. 196900000; 196900050; 196901000; 196905000
Synonyms Mercuric cyanide

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 Pharmaceuticalaalan 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

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
REGULATION (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Category 2</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Acute Inhalation Toxicity - Vapors</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ systemic toxicity (repeated exposure)</td>
<td>Category 2</td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16
Symbol(s) T+ - Very toxic
R - Dangerous for the environment
R-phraset(s) R32 - Contact with acids liberates very toxic gas
R33 - Danger of cumulative effects
Risk Combination Phrases R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
SECTION 2. HAZARDS IDENTIFICATION

Label Elements

Signal Word  Danger

Hazard Statements
H300 - Fatal if swallowed
H310 - Fatal in contact with skin
H373 - May cause damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects
H330 - Fatal if inhaled
EUH032 - Contact with acids liberates very toxic gas

Precautionary Statements - EU (§28, 1272/2008)
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P361 - Remove/Take off immediately all contaminated clothing
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P273 - Avoid release to the environment

Other Hazards
No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Mercuric cyanide</td>
<td>EEC No. 209-741-6</td>
<td>99</td>
<td>592-04-1</td>
<td>T+; R26/27/28 R32 N; R50-53 T+; R26/27/28 R33 N; R50-53</td>
<td>Acute Tox. 2 (H300) Acute Tox. 1 (H310) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)</td>
<td>-</td>
</tr>
</tbody>
</table>
For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES

Description of first aid measures

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

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Ingestion
Call a physician immediately. Clean mouth with water.

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

Notes to Physician
Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

Special hazards arising from the substance or mixture
Non-combustible.

Advice for fire-fighters
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

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

Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe dust. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Use only in area provided with appropriate exhaust ventilation. Minimize dust generation and accumulation.

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 locked-up.

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>European Union</th>
<th>The United Kingdom</th>
<th>France</th>
<th>Belgium</th>
<th>Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercuric cyanide</td>
<td>STEL: 15 mg/m³ 15 min</td>
<td>TWA: 5 mg/m³ 8 hr</td>
<td>Skin</td>
<td>VME: 5 mg/m³ 8 heures. CN</td>
<td>VME: 0.1 mg/m³ 8 heures. Hg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Italy</th>
<th>Germany</th>
<th>Portugal</th>
<th>The Netherlands</th>
<th>Finland</th>
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</thead>
<tbody>
<tr>
<td>Mercuric cyanide</td>
<td>MAK: 2 mg/m³ 8 Stunden. inhalable fraction</td>
<td>MAK: 0.02 mg/m³ 8 Stunden. inhalable fraction</td>
<td>TWA: 0.025 mg/m³ 8 horas</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td>Skin</td>
<td>Skin</td>
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</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Austria</th>
<th>Denmark</th>
<th>Switzerland</th>
<th>Poland</th>
<th>Norway</th>
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</thead>
<tbody>
<tr>
<td>Mercuric cyanide</td>
<td>Skin</td>
<td>STEL: 0.1 mg/m³ 15 Minuten</td>
<td>STEL: 0.8 mg/m³ 15 Minuten</td>
<td>MAK: 0.01 mg/m³ 8 Stunden</td>
<td>MAK: 0.1 mg/m³ 8 Stunden</td>
</tr>
<tr>
<td></td>
<td>STEL: 0.4 mg/m³ 15 Minuten</td>
<td>TWA: 0.01 mg/m³ 8 Stunden</td>
<td>TWA: 0.1 mg/m³ 8 Stunden</td>
<td>TWA: 5 mg/m³ 8 timer</td>
<td>TWA: 0.02 mg/m³ 8 timer</td>
</tr>
</tbody>
</table>
Component
Mercuric cyanide

<table>
<thead>
<tr>
<th>Component</th>
<th>Bulgaria</th>
<th>Croatia</th>
<th>Ireland</th>
<th>Cyprus</th>
<th>Czech Republic</th>
</tr>
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<tbody>
<tr>
<td>Mercuric cyanide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Derived No Effect Level (DNEL)**
No information available.

**Predicted No Effect Concentration (PNEC)**
No information available.

**Exposure controls**

**Engineering Measures**
Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**
- **Eye Protection**
- **Hand Protection**
- **Skin and body protection**
- **Respiratory Protection**
  - Goggles
  - Protective gloves
  - Wear appropriate protective gloves and clothing to prevent skin exposure
  - 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.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State**
Powder, Solid

**Appearance**
White

**odor**
odorless

**pH**
5 \( \text{g/L aq.sol.} \)

**Vapor Density**
8.7

**Boiling Point/Range**
No information available.

**Melting Point/Range**
No information available.

**Decomposition temperature**
320 \( ^\circ \text{C} \)

**Flash Point**
No information available.

**Autoignition Temperature**
No information available.

**Water Solubility**
93 \( \text{G/L IN WATER (14\(^\circ\)C)} \)

**Specific Gravity**
3.996

**Molecular Formula**
C\(_2\) Hg N\(_2\)

**Molecular Weight**
252.63

---

**SECTION 10. STABILITY AND REACTIVITY**

**Reactivity**

**Chemical Stability**
Hygroscopic. Light sensitive.

**Possibility of Hazardous Reactions**

- **Hazardous Polymerization**  
  No information available.
- **Hazardous Reactions**  
  No information available.

**Conditions to Avoid**

Exposure to light, Incompatible products, Exposure to moist air or water.

**Incompatible Materials**

- Strong oxidizing agents, Strong acids, Fluorine, Metals.

**Hazardous Decomposition Products**

- Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO₂), Hydrogen cyanide (hydrocyanic acid).

### SECTION 11. TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects**

**Acute Toxicity**

**Product Information**

No acute toxicity information is available for this product

<table>
<thead>
<tr>
<th>Component Information</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercuric cyanide</td>
<td></td>
<td>26 mg/kg (Rat)</td>
<td></td>
</tr>
</tbody>
</table>

**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

### SECTION 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
No information available

SECTION 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 to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

UN-No 1636
Hazard Class 6.1
Packing Group II
Proper Shipping Name MERCURY CYANIDE

ADR

UN-No 1636
Hazard Class 6.1
Packing Group II
Proper Shipping Name MERCURY CYANIDE

IATA

UN-No 1636
Hazard Class 6.1
SECTION 14. TRANSPORT INFORMATION

Packing Group  II
Proper Shipping Name  MERCURY CYANIDE

SECTION 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>
<th>ENCS</th>
<th>CHINA</th>
<th>AICS</th>
<th>KECL</th>
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<tbody>
<tr>
<td>Mercuric cyanide</td>
<td>209-741-6</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
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

SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R32 - Contact with acids liberates very toxic gas
R33 - Danger of cumulative effects
R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Revision Date  19-Apr-2012
Revision Summary
Reason for revision  Not applicable
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
SECTION 16. OTHER INFORMATION

Disclaimer
The information provided on 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 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