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

1.1. Product identifier

- Product form: Substance
- Trade name: ETHIONAMIDE CRS
- EC no: 208-628-9
- CAS No: 536-33-4
- Product code: E2000000
- Other means of identification: RTECS No: NS0350000

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

1.2.1. Relevant identified uses

- Main use category: The product is intended for research, analysis and scientific education.
- Use of the substance/mixture: For professional use only
- Function or use category: Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

European Directorate for the Quality of Medicines & Healthcare
EDQM, Council of Europe
F-67081 Strasbourg
T +33(0)388412035 - F +33(0)388412771

1.4. Emergency telephone number

Emergency number: +44(0)1235239670

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
- Acute Tox. 4 (Oral): H302
- Carc. 2: H351
- Repr. 2: H361d

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC
- Carc. Cat.3: R40
- Repr. Cat.3: R63
- Xn; R22

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available
2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

- **Signal word (CLP):** Warning
- **Hazard pictograms (CLP):** GHS08, GHS07
- **Hazard statements (CLP):**
  - H302 - Harmful if swallowed
  - H351 - Suspected of causing cancer
  - H361d - Suspected of damaging the unborn child
- **Precautionary statements (CLP):**
  - P201 - Obtain special instructions before use
  - P202 - Do not handle until all safety precautions have been read and understood
  - P264 - Wash hands and other exposed areas thoroughly after handling
  - P281 - Use personal protective equipment as required
  - P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell
  - P308+P313 - IF exposed or concerned: Get medical advice/attention
  - P330 - Rinse mouth
  - P501 - Dispose of contents/container to: Hazardous waste. Comply with applicable regulations

2.3. Other hazards

Other hazards not contributing to the classification: Exposure may produce an allergic reaction.

**SECTION 3: Composition/information on ingredients**

3.1. **Substances**

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Directive 67/548/EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHIONAMIDE (Main constituent)</td>
<td>(CAS No)536-33-4</td>
<td>≤ 100</td>
<td>Carc.Cat.3; R40</td>
</tr>
<tr>
<td>ETHIONAMIDE (Main constituent)</td>
<td>(EC no)208-628-9</td>
<td>= 100</td>
<td>Repr.Cat.3; R63; Xn; R22</td>
</tr>
</tbody>
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<tr>
<td>ETHIONAMIDE (Main constituent)</td>
<td>(EC no)208-628-9</td>
<td>= 100</td>
<td>Carc. 2, H351; Repr. 2, H361d</td>
</tr>
</tbody>
</table>

Full text of R-, H- and EUH-phrases: see section 16

3.2. **Mixture**

Not applicable

**SECTION 4: First aid measures**

4.1. Description of first aid measures

- **First-aid measures after inhalation:** Move to fresh air in case of accidental inhalation. Assure fresh air breathing.
- **First-aid measures after skin contact:** Rinse skin with water/shower.
- **First-aid measures after eye contact:** Rinse with water while holding the eyes wide open. Contact lenses should be removed.
- **First-aid measures after ingestion:** Rinse mouth out with water.

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

- **Symptoms/injuries:** See Heading 2.

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

In all cases of doubt, or when symptoms persist, seek medical attention.

**SECTION 5: Firefighting measures**

5.1. Extinguishing media

- **Suitable extinguishing media:** Small amounts: Use extinguishing media appropriate for surrounding fire. Extinguishing blanket. Carbon dioxide. Dry powder. Large amounts: Not applicable.
- **Unsuitable extinguishing media:** Water may be ineffective in firefighting due to low solubility.

5.2. Special hazards arising from the substance or mixture

No additional hazards available.
5.3. Advice for firefighters

Precautionary measures fire

: Small amounts: Use normal individual fire protective equipment. Large amounts: Not applicable.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

: Avoid raising dust. Wear suitable protective clothing, gloves and eye or face protection. Large amounts: Not applicable.

6.1.1. For non-emergency personnel

Protective equipment

: See Headings 7 and 8.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Ensure waste is collected and contained. Clean thoroughly. Poorly soluble in water. Clean with the help of detergents.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

: Small amounts: See Heading 1. When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Precautions for safe handling

: Handle and open container with care. See Heading 8.

Hygiene measures

: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: Comply with applicable regulations.

Storage conditions

: To guarantee the quality and properties of the product, keep: dry. Keep in a cool, well-ventilated place away from heat. Store in original container.

Incompatible products

: Strong oxidizing agents.

7.3. Specific end use(s)

See Heading 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection

: Gloves.

Skin and body protection

: Lab coat.

Respiratory protection

: Quarter mask (DIN EN 140).
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid
Colour: No data available
Odour: No data available
Odour threshold: No data available
pH: 6 - 7 (1%)
Relative evaporation rate (butylacetate=1): No data available
Melting point: 158 - 164 °C
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Self ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapour pressure: No data available
Relative vapour density at 20 °C: No data available
Relative density: No data available
Solubility: Methanol.
Water: < 1 mg/l
Log Pow: 0.3699 at 20°C
Log Kow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidising properties: No data available
Explosive limits: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

Small amounts: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. Large amounts: Not applicable.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Small amounts: None under normal use. Large amounts: Not applicable.

10.6. Hazardous decomposition products

When heated to decomposition, emits dangerous fumes. Large amounts: Not applicable.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Harmful if swallowed.

<table>
<thead>
<tr>
<th>ETHIONAMIDE CRS(536-33-4)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>1320 mg/kg</td>
</tr>
<tr>
<td>ATE (oral)</td>
<td>500,000 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified
pH: 6 - 7 (1%)
ETHIONAMIDE CRS
Safety Data Sheet

| Serious eye damage/irritation | Not classified |
| Respiratory or skin sensitisation | Not classified |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Suspected of causing cancer. |
| Reproductive toxicity | Suspected of damaging the unborn child. |
| 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 | Avoid any direct contact with the product. Small amounts: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. Large amounts: Not applicable. |

SECTION 12: Ecological information

12.1. Toxicity

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

| ETHIONAMIDE CRS(536-33-4) | Log Pow | 0.3699 at 20°C |

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Regional legislation (waste): Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number
No dangerous good in sense of transport regulations

14.2. UN proper shipping name
Not applicable

14.3. Transport hazard class(es)
Not applicable

14.4. Packing group
Not applicable

14.5. Environmental hazards
Other information: No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport
No additional information available

14.6.2. Transport by sea
No additional information available

14.6.3. Air transport
No additional information available
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations
No REACH Annex XVII restrictions

15.1.2. National regulations
No additional information available

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carc. 2</td>
<td>Carcinogenicity, Category 2</td>
</tr>
<tr>
<td>Repr. 2</td>
<td>Reproductive toxicity, Category 2</td>
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<tr>
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<td>Suspected of causing cancer</td>
</tr>
<tr>
<td>H361d</td>
<td>Suspected of damaging the unborn child</td>
</tr>
<tr>
<td>R22</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>R40</td>
<td>Limited evidence of a carcinogenic effect</td>
</tr>
<tr>
<td>R63</td>
<td>Possible risk of harm to the unborn child</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</td>
</tr>
</tbody>
</table>

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.