SAFETY DATA SHEET
Oxyma

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

1.1. Product identifier
Product name Oxyma
Product number FE04090
Synonyms; trade names Ethyl (hydroxyimino)cyanoacetate, Ethyl oximinocyanoacetate, Ethyl isonitrosocyanoacetate, Oxyma
CAS number 3849-21-6
EC number 223-351-3

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses Laboratory reagent. Manufacture of substances. Research and development.

1.3. Details of the supplier of the safety data sheet
Supplier Carbosynth Ltd
8&9 Old Station Business Park
Compton
Berkshire
RG20 6NE
UK
+44 1635 578444
+44 1635 579444
info@carbosynth.com

1.4. Emergency telephone number
Emergency telephone +44 7887 998634

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards Not Classified
Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
Environmental hazards Not Classified

2.2. Label elements
EC number 223-351-3

Hazard pictograms
Oxyma

Signal word

Warning

Hazard statements

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements

P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name Oxyma
CAS number 3849-21-6
EC number 223-351-3
Chemical formula C₅H₆N₂O₃

SECTION 4: First aid measures

4.1. Description of first aid measures

Get medical advice/attention if you feel unwell.

General information

Inhalation
Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if symptoms are severe or persist.

Ingestion
Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if symptoms are severe or persist.

Skin contact
Remove contaminated clothing. Rinse with water. Continue to rinse for at least 15 minutes. Wash contaminated clothing before reuse. Get medical attention if symptoms are severe or persist.

Eye contact
Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist.

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

See Section 11 for additional information on health hazards.

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

Treat symptomatically.

Notes for the doctor

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
**Oxyma**

**Specific hazards**
None known.

**Hazardous combustion products**
Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.

**5.3. Advice for firefighters**

**Special protective equipment for firefighters**
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Use protective equipment appropriate for surrounding materials.

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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of dust and vapours. Provide adequate ventilation. Keep unnecessary and unprotected personnel away from the spillage.

**6.2. Environmental precautions**
Avoid discharge into drains or watercourses or onto the ground.

**6.3. Methods and material for containment and cleaning up**

**Methods for cleaning up**
Wear protective clothing as described in Section 8 of this safety data sheet. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Clear up spills immediately and dispose of waste safely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

**6.4. Reference to other sections**
For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

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**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Usage precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. Wash hands thoroughly after handling. Provide adequate ventilation. Avoid generation and spreading of dust. Avoid contact with skin and eyes. Avoid inhalation of dust and vapours.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage precautions**
Keep container tightly closed. Store locked up. Store away from incompatible materials (see Section 10). Protect from light. Store at room temperature.

**7.3. Specific end use(s)**

**Specific end use(s)**
The identified uses for this product are detailed in Section 1.2.

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**SECTION 8: Exposure controls/Personal protection**

**8.1. Control parameters**

**Occupational exposure limits**
No exposure limits known for ingredient(s).

**8.2. Exposure controls**
Oxyma

**Appropriate engineering controls**
Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

**Eye/face protection**
Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

**Hand protection**
Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374.

**Other skin and body protection**
Wear appropriate clothing to prevent repeated or prolonged skin contact.

**Respiratory protection**
Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Particulate filter, type P1. Particulate filters should comply with European Standard EN143. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

**Environmental exposure controls**
Keep container tightly sealed when not in use.

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### SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

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<thead>
<tr>
<th>Property</th>
<th>Value/Description</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid.</td>
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<tr>
<td>Colour</td>
<td>Off-white. to Yellow.</td>
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<tr>
<td>Odour</td>
<td>No data available.</td>
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<td>Odour threshold</td>
<td>No data available.</td>
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<td>pH</td>
<td>No data available.</td>
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<td>Melting point</td>
<td>127 to 133°C</td>
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<td>Initial boiling point and range</td>
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<td>Flash point</td>
<td>No data available.</td>
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<tr>
<td>Evaporation rate</td>
<td>No data available.</td>
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<tr>
<td>Flammability (solid, gas)</td>
<td>No data available.</td>
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<td>Upper/lower flammability or explosive limits</td>
<td>No data available.</td>
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<td>Vapour pressure</td>
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<td>Vapour density</td>
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<tr>
<td>Relative density</td>
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<td>Solubility(ies)</td>
<td>Slightly soluble in water. Soluble in the following materials: Methanol.</td>
</tr>
<tr>
<td>Partition coefficient</td>
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<tr>
<td>Auto-ignition temperature</td>
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<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Viscosity</td>
<td>No data available.</td>
</tr>
</tbody>
</table>
Oxyma

Explosive properties
No data available.

Oxidising properties
No data available.

9.2. Other information
Molecular weight
142.11

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
No data available.

10.2. Chemical stability
Stability
Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
Conditions to avoid
No data available.

10.5. Incompatible materials
Materials to avoid

10.6. Hazardous decomposition products
Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral
Notes (oral LD₅₀) Acute Tox. 4 - H302 Harmful if swallowed.
ATE oral (mg/kg) 500.0

Acute toxicity - dermal
Notes (dermal LD₅₀) Acute Tox. 4 - H312 Harmful in contact with skin.
ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation
Notes (inhalation LC₅₀) Acute Tox. 4 - H332 Harmful if inhaled.
ATE inhalation (dusts/mists mg/l) 1.5

Skin corrosion/irritation
Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation
Oxyma

Skin sensitisation  Based on available data the classification criteria are not met.

Germ cell mutagenicity  Based on available data the classification criteria are not met.

Genotoxicity - in vitro  Based on available data the classification criteria are not met.

Carcinogenicity  Based on available data the classification criteria are not met.

IARC carcinogenicity  No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity  Based on available data the classification criteria are not met.

Reproductive toxicity - fertility  Based on available data the classification criteria are not met.

Reproductive toxicity - development  Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure  STOT - single exposure  Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure  STOT - repeated exposure  Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard  Not relevant. Solid.

General information  Dust may irritate the eyes and the respiratory system. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation  A single exposure may cause the following adverse effects: Headache. Exhaustion and weakness.

Ingestion  May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.

Skin contact  Redness. Irritating to skin.

Eye contact  Irritating to eyes.

Route of exposure  Ingestion Inhalation Skin and/or eye contact

Target organs  No specific target organs known.

SECTION 12: Ecological information

Ecotoxicity  Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity  Based on available data the classification criteria are not met.

12.2. Persistence and degradability  The degradability of the product is not known.

12.3. Bioaccumulative potential  No data available on bioaccumulation.

Partition coefficient  No data available.

12.4. Mobility in soil  No data available.

6/8
12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment
No data available.

12.6. Other adverse effects

Other adverse effects
None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information
Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered.

SECTION 14: Transport information

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

National regulations
Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.
Oxyma

EU legislation


15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
CAS: Chemical Abstracts Service.
ATE: Acute Toxicity Estimate.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
EC₅₀: 50% of maximal Effective Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

Training advice

Only trained personnel should use this material.

Revision date

20/01/2020

Revision

3

Supersedes date

31/05/2018

SDS number

144926

Hazard statements in full

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.