SECTION 1: Identification

1.1. Product identifier

Identification of the substance/preparation

2-Ethylhexanoic acid

CAS-No 149-57-5

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

Use of the Substance / Preparation

Intermediate

Uses advised against

Consumer uses

To avoid exposure of consumers

1.3. Details of the supplier of the safety data sheet

Supplier

OXEA Corporation
15375 Memorial Drive
West Memorial Place I
Suite 300
Houston, TX 77079
USA
Phone +1 346 378 7300

Product Information

Product Stewardship
FAX: +49 (0)208 693 2053
email: psq@oxea-chemicals.com

1.4. Emergency telephone number

Emergency telephone number

in USA, call 800 424 9300
outside USA, call +1.703.527.3887, collect calls accepted
available 24/7

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This substance is classified in accordance with paragraph (d) of §1910.1200 (GHS-US classification).

Reproductive toxicity Category 2, H361
Environmental hazard Aquatic Acute 3; H402
OSHA Specified Hazards Not applicable.

2.2. Label elements

Labeling according to §1910.1200 (GHS-US labeling).

Hazard symbol(s)

Signal word Warning

Hazard statements H361: Suspected of damaging fertility or the unborn child.
H402: Harmful to aquatic life

Precautionary statements

Prevention P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response P308 + P313: IF exposed or concerned: Get medical advice/attention.

Storage P405: Store locked up.

Disposal P501: Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

Components of the product may be absorbed into the body by inhalation, ingestion and through the skin.

SECTION 3: Composition / information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethylhexanoic acid</td>
<td>149-57-5</td>
<td>&gt; 99,20</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures
SAFETY DATA SHEET

2-Ethylhexanoic acid
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Inhalation
Keep at rest. Aerate with fresh air. When symptoms persist or in all cases of doubt seek medical advice.

Skin
Wash off immediately with soap and plenty of water. When symptoms persist or in all cases of doubt seek medical advice.

Eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Ingestion
Call a physician immediately. Do not induce vomiting without medical advice.

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

Main symptoms
None known.

Special hazard
Lung irritation, Lung oedema, Kidney disorders, respiratory disorder.

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

General advice
Remove contaminated, soaked clothing immediately and dispose of safely. First aider needs to protect himself.

Treat symptomatically. If ingested, flush stomach and compensate acidosis.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
foam, dry chemical, carbon dioxide (CO2), water spray

Unsuitable Extinguishing Media
Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Under conditions giving incomplete combustion, hazardous gases produced may consist of:
carbon monoxide (CO)
carbon dioxide (CO2)
Combustion gases of organic materials must in principle be graded as inhalation poisons
Vapours are heavier than air and may spread along floors

5.3. Advice for firefighters

Special protective equipment for firefighters

Emergency telephone number
in USA, call 800 424 9300; outside USA, call USA 703 527 3887, collect calls accepted

USA (A-US)
SAFETY DATA SHEET

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Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

Precautions for firefighting
Cool containers / tanks with water spray. Dike and collect water used to fight fire. Keep people away from and upwind of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: For personal protective equipment see section 8. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.

For emergency responders: Personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).

6.3. Methods and material for containment and cleaning up

Methods for containment
Stop the flow of material, if possible without risk. Dike spilled material, where this is possible.

Methods for cleaning up
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. Dispose of in accordance with local regulations. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

6.4. Reference to other sections

For personal protective equipment see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Provide sufficient air exchange and/or exhaust in work rooms.

Hygiene measures
When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Advice on the protection of the environment
See Section 8: Environmental exposure controls.
Incompatible products
bases
amines
strong oxidizing agents

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material.

Technical measures/Storage conditions
Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care. Recommended storage temperature: <= 38 °C / <= 100 °F.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Exposure limits United States of America

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA (mg/m³)</th>
<th>TWA (ppm)</th>
<th>STEL (mg/m³)</th>
<th>STEL (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethylhexanoic acid CAS: 149-57-5</td>
<td>5</td>
<td>Inhalable fraction and vapor.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note
For details and further information please refer to the original regulation.

8.2. Exposure controls

Appropriate Engineering controls
General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Individual protection measures, such as personal protective equipment

General industrial hygiene practice
Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures
When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks
2-Ethylhexanoic acid
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and immediately after handling the product.

**Eye protection**
Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.

**Hand protection**
Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

<table>
<thead>
<tr>
<th>Suitable material</th>
<th>nitrile rubber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>according to EN 374: level 6</td>
</tr>
<tr>
<td>Glove thickness</td>
<td>approx 0.55 mm</td>
</tr>
<tr>
<td>Break through time</td>
<td>&gt; 480 min</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suitable material</th>
<th>polyvinylchloride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Information derived from practical experience</td>
</tr>
<tr>
<td>Glove thickness</td>
<td>approx 0.8 mm</td>
</tr>
</tbody>
</table>

**Skin and body protection**
Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.

**Respiratory protection**
Respirator with filter for organic vapour. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Equipment should conform to NIOSH.

**Environmental exposure controls**
Use product only in closed system. If leakage can not be prevented, the substance needs to be suck off at the emersion point, if possible without danger. Observe the exposure limits, clean exhaust air if needed. If recycling is not practicable, dispose of in compliance with local regulations. Inform the responsible authorities in case of leakage into the atmosphere, or of entry into waterways, soil or drains.

---

**SECTION 9: Physical and chemical properties**

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>mild</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>3.75 (1 g/l in water @ 25 °C (77 °F)) DIN 19268</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>-117 °F (-83 °C) (Pour point)</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>442 °F (228 °C) @ 1 atm (101,3 kPa)</td>
</tr>
<tr>
<td>Method</td>
<td>OECD 103</td>
</tr>
<tr>
<td>Flash point</td>
<td>241 °F (116 °C) @ 1013 hPa</td>
</tr>
<tr>
<td>Method</td>
<td>closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Does not apply, the substance is a liquid</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>0.8 Vol %</td>
</tr>
</tbody>
</table>

Emergency telephone number in USA, call 800 424 9300; outside USA, call USA 703 527 3887, collect calls accepted
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Upper explosion limit 6.7 Vol %

Vapour pressure

<table>
<thead>
<tr>
<th>Values [hPa]</th>
<th>Values [kPa]</th>
<th>Values [atm]</th>
<th>@ °C</th>
<th>@ °F</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.04</td>
<td>0.004</td>
<td>&lt; 0.001</td>
<td>20</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>0.43</td>
<td>0.004</td>
<td>50</td>
<td>122</td>
<td></td>
</tr>
</tbody>
</table>

Vapour density 5.0 (Air = 1) @ 20 °C (68 °F)

Relative density

<table>
<thead>
<tr>
<th>Values</th>
<th>@ °C</th>
<th>@ °F</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.9067</td>
<td>20</td>
<td>68</td>
<td>DIN 51757</td>
</tr>
</tbody>
</table>

Solubility No data available

Water solubility 1.4 g/l @ 68 °F (20 °C)

log Pow 2.7 (measured) OECD 107

Autoignition temperature 590 °F (310 °C)

Method DIN 51794

Decomposition temperature No data available

Viscosity 8 mPa*s @ 68 °F (20 °C)

Method dynamic, ASTM D445

9.2. Other information

Molecular weight 144.21

Molecular formula C8H16O2

Oxidizing properties Does not apply, substance is not oxidising. There are no chemical groups associated with oxidizing properties

Refractive Index 1.425 @ 68 °F (20 °C)

Explosive properties Does not apply, substance is not explosive. There are no chemical groups associated with explosive properties

SECTION 10: Stability and Reactivity

10.1. Reactivity

The reactivity of the product corresponds to the typical reactivity shown by the substance group as described in any text book on organic chemistry.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Avoid contact with heat, sparks, open flame and static discharge. Avoid any source of ignition.

Emergency telephone number in USA, call 800 424 9300; outside USA, call USA 703 527 3887, collect calls accepted

7 / 13 USA (A-US)
10.5. Incompatible materials
bases, amines, strong oxidizing agents.

10.6. Hazardous decomposition products
No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure Ingestion, Inhalation, Eye contact, Skin contact

2-Ethylhexanoic acid, CAS: 149-57-5
Target Organ Systemic Toxicant - Single exposure
Based on available data, the classification criteria are not met for:
STOT SE
Target Organ Systemic Toxicant - Repeated exposure
Based on available data, the classification criteria are not met for:
STOT RE

Acute toxicity
2-Ethylhexanoic acid (149-57-5)

<table>
<thead>
<tr>
<th>Routes of Exposure</th>
<th>Endpoint</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>2043 mg/kg</td>
<td>rat, female</td>
<td>OECD 401</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>&gt; 2000 mg/kg</td>
<td>rat, male/female</td>
<td>OECD 402</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC0</td>
<td>0.11 mg/l (8 h)</td>
<td>rat</td>
<td>OECD 403</td>
</tr>
</tbody>
</table>

2-Ethylhexanoic acid, CAS: 149-57-5
Assessment
Based on available data, the classification criteria are not met for:
Acute oral toxicity
Acute dermal toxicity
Acute inhalation toxicity

Irritation and corrosion
2-Ethylhexanoic acid (149-57-5)

<table>
<thead>
<tr>
<th>Target Organ Effects</th>
<th>Species</th>
<th>Result</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>rabbit</td>
<td>Mild skin irritation</td>
<td>OECD 404</td>
</tr>
<tr>
<td>Eyes</td>
<td>rabbit</td>
<td>No eye irritation</td>
<td>OECD 405</td>
</tr>
</tbody>
</table>

2-Ethylhexanoic acid, CAS: 149-57-5
Assessment
Based on available data, the classification criteria are not met for:
skin irritation/corrosion
eye irritation/corrosion
For respiratory irritation, no data are available
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Sensitization
2-Ethylhexanoic acid (149-57-5)
Target Organ Effects

<table>
<thead>
<tr>
<th>Species</th>
<th>Evaluation</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>guinea pig</td>
<td>not sensitizing</td>
</tr>
</tbody>
</table>

2-Ethylhexanoic acid, CAS: 149-57-5
Assessment
Based on available data, the classification criteria are not met for:
Skin sensitization
For respiratory sensitization, no data are available

Subacute, subchronic and prolonged toxicity
2-Ethylhexanoic acid (149-57-5)

<table>
<thead>
<tr>
<th>Type</th>
<th>Dose</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subchronic toxicity</td>
<td>NOAEL: about 200</td>
<td>mouse, male/female</td>
<td>EPA OTS 795.2600</td>
</tr>
<tr>
<td></td>
<td>mg/kg/d (90d)</td>
<td></td>
<td>Oral</td>
</tr>
<tr>
<td>Subchronic toxicity</td>
<td>NOAEL: about 300</td>
<td>rat, male/female</td>
<td>EPA OTS 795.2600</td>
</tr>
<tr>
<td></td>
<td>mg/kg/d (90d)</td>
<td></td>
<td>Oral</td>
</tr>
</tbody>
</table>

2-Ethylhexanoic acid, CAS: 149-57-5
Assessment
Based on available data, the classification criteria are not met for:
STOT RE

Carcinogenicity, Mutagenicity, Reproductive toxicity
2-Ethylhexanoic acid (149-57-5)

<table>
<thead>
<tr>
<th>Type</th>
<th>Dose</th>
<th>Species</th>
<th>Evaluation</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental Toxicity</td>
<td>NOAEL 25</td>
<td>rabbit</td>
<td></td>
<td>EPA OTS 798.4900 Maternal toxicity</td>
</tr>
<tr>
<td></td>
<td>mg/kg/d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental Toxicity</td>
<td>NOAEL 250</td>
<td>rabbit</td>
<td></td>
<td>EPA OTS 798.4900 Developmental toxicity</td>
</tr>
<tr>
<td></td>
<td>mg/kg/d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental Toxicity</td>
<td>NOAEL 250</td>
<td>rat</td>
<td></td>
<td>EPA OTS 798.4900 Developmental toxicity</td>
</tr>
<tr>
<td></td>
<td>mg/kg/d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental Toxicity</td>
<td>NOAEL 100</td>
<td>rat</td>
<td></td>
<td>EPA OTS 798.4900 Developmental toxicity</td>
</tr>
<tr>
<td></td>
<td>mg/kg/d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>NOAEL 250</td>
<td>rat, parental</td>
<td></td>
<td>Oral OECD 443</td>
</tr>
<tr>
<td></td>
<td>mg/kg/d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>NOAEL 800</td>
<td>rat, 1. Generation,</td>
<td></td>
<td>Oral OECD 443</td>
</tr>
<tr>
<td></td>
<td>mg/kg/d</td>
<td>male/female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>CHO (Chinese</td>
<td>negative</td>
<td></td>
<td>OECD 476 (Mammalian Gene</td>
</tr>
<tr>
<td></td>
<td>Hamster Ovary)</td>
<td></td>
<td></td>
<td>Mutation)</td>
</tr>
<tr>
<td></td>
<td>cells</td>
<td></td>
<td></td>
<td>In vitro study</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>mouse lymphoma</td>
<td>negative</td>
<td></td>
<td>OECD 476 (Mammalian Gene</td>
</tr>
<tr>
<td></td>
<td>cells</td>
<td></td>
<td></td>
<td>Mutation)</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Salmonella</td>
<td>negative</td>
<td></td>
<td>OECD 471 (Ames)</td>
</tr>
<tr>
<td></td>
<td>typhimurium</td>
<td></td>
<td></td>
<td>In vitro study</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>rat lymphocytes</td>
<td>negative</td>
<td></td>
<td>OECD 473</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>In vitro study</td>
</tr>
</tbody>
</table>
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===============================================

Mutagenicity
mouse male/female negative OECD 474 Oral micronucleus test

<table>
<thead>
<tr>
<th>2-Ethylhexanoic acid, CAS: 149-57-5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CMR Classification</strong></td>
</tr>
<tr>
<td>The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B. Directive 1272/2008/EC, Annex VI: Repr. 2</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
</tr>
<tr>
<td>In vitro tests showed mutagenic effects</td>
</tr>
<tr>
<td>Did not show carcinogenic effects in animal experiments</td>
</tr>
<tr>
<td>No indication for a carcinogenic potential</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-Ethylhexanoic acid, CAS: 149-57-5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aspiration toxicity</strong></td>
</tr>
<tr>
<td>no data available</td>
</tr>
<tr>
<td><strong>Other adverse effects</strong></td>
</tr>
<tr>
<td>Components of the product may be absorbed into the body by inhalation, ingestion and through the skin.</td>
</tr>
<tr>
<td><strong>Note</strong></td>
</tr>
<tr>
<td>Handle in accordance with good industrial hygiene and safety practice. Further details on substance data can be found in the registration dossier under the following link: <a href="http://echa.europa.eu/information-on-chemicals/registered-substances">http://echa.europa.eu/information-on-chemicals/registered-substances</a>.</td>
</tr>
</tbody>
</table>

SECTION 12: Ecological information

12.1. Toxicity

**Acute aquatic toxicity**
2-Ethylhexanoic acid (149-57-5)

<table>
<thead>
<tr>
<th>Species</th>
<th>Exposure time</th>
<th>Dose</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oryzias latipes (Medaka)</td>
<td>96h</td>
<td>LC50: &gt; 100 mg/l</td>
<td>OECD 203</td>
</tr>
<tr>
<td>Daphnia magna (Water flea)</td>
<td>48h</td>
<td>EC50: 85.4 mg/l</td>
<td>79/831/EEC.C2</td>
</tr>
<tr>
<td>Desmodesmus subspicatus</td>
<td>72h</td>
<td>EC50: 49.3 mg/l</td>
<td>DIN 38412, part 9</td>
</tr>
<tr>
<td>Pseudomonas putida</td>
<td>17 h</td>
<td>EC50: 112.1 mg/l (Growth inhibition)</td>
<td>DIN 38412, part 8</td>
</tr>
</tbody>
</table>

**Long term toxicity**
2-Ethylhexanoic acid (149-57-5)

<table>
<thead>
<tr>
<th>Type</th>
<th>Species</th>
<th>Dose</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproductive toxicity</td>
<td>Daphnia magna (Water flea)</td>
<td>NOEC: 25 mg/l</td>
<td>OECD 211</td>
</tr>
<tr>
<td>Aquatic toxicity</td>
<td>Desmodesmus subspicatus</td>
<td>EC10: 32 mg/l (3 h)</td>
<td>DIN 38412 / part 9</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
2-Ethylhexanoic acid, CAS: 149-57-5

Biodegradation
99 % (28 d), Sewage, domestic, aerobic, OECD 301 E.

<table>
<thead>
<tr>
<th>Abiotic Degradation</th>
<th>2-Ethylhexanoic acid (149-57-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Result</td>
</tr>
<tr>
<td>Photolysis</td>
<td>Half-life (DT50): 47,1 h</td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>not expected</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>2-Ethylhexanoic acid (149-57-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>log Pow</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

2-Ethylhexanoic acid, CAS: 149-57-5
No data available

<table>
<thead>
<tr>
<th>2-Ethylhexanoic acid (149-57-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>Adsorption/Desorption</td>
</tr>
<tr>
<td>Surface tension</td>
</tr>
<tr>
<td>Distribution to environmental compartments</td>
</tr>
</tbody>
</table>

12.5. Results of PBT and vPvB assessment

2-Ethylhexanoic acid, CAS: 149-57-5
PBT and vPvB assessment
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

12.6. Other adverse effects

2-Ethylhexanoic acid, CAS: 149-57-5
No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product Information

Emergency telephone number in USA, call 800 424 9300; outside USA, call USA 703 527 3887, collect calls accepted
11 / 13 USA (A-US)
Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

Uncleaned empty packaging
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

Section 14.1 - 14.6

D.O.T. (49CFR)          Not restricted

ICAO-TI / IATA-DGR      Not restricted

IMDG                   Not restricted

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

<table>
<thead>
<tr>
<th>Product name</th>
<th>2-Ethylhexanoic acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship type</td>
<td>3</td>
</tr>
<tr>
<td>Pollution category</td>
<td>Y</td>
</tr>
</tbody>
</table>

SECTION 15: Regulatory information

Federal and State Regulations
Components of the product are listed in the quoted regulations. For details please refer to the regulations directly. This list is not exhaustive, please check for other applicable regulations.

Federal Regulations
This product is listed on the TSCA inventory

International Inventories

2-Ethylhexanoic acid, CAS: 149-57-5
AICS (AU)
DSL (CA)
IECSC (CN)
SAFETY DATA SHEET

2-Ethylhexanoic acid
10040

Version / Revision 4.01

EC-No. 2057436 (EU)
ENCS (2)-608 (JP)
ISHL (2)-608 (JP)
KECI KE-13740 (KR)
INSQ (MX)
PICCS (PH)
TSCA (US)
NZIoC (NZ)
TCSI (TW)

SECTION 16: Other information

Revision Date 10-Dec-2019
Issuing date 10-Dec-2019

Hazard Rating Systems

NFPA (National Fire Protection Association)
- Health Hazard 1
- Fire Hazard 1
- Reactivity 0

HMIS (Hazardous Material Information System)
- Health Hazard 1
- Flammability 1
- Physical Hazard 0

Training advice
For effective first-aid, special training / education is needed.

Sources of key data used to compile the datasheet
Information contained in this safety data sheet is based on Oxea owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, ANSI or Annex II, Regulation 1907/2006/EC indicates, that no data meeting these requirements is available.

Further information for the safety data sheet
Changes against the previous version are marked by ***. Observe national and local legal requirements. For more information, other material safety data sheets or technical data sheets please consult the Oxea homepage (www.oxea-chemicals.com).
The use of a comma in section 3 and section 7 to 12 is the same as a period.

Disclaimer
For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Oxea makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

End of Safety Data Sheet