

## SAFETY DATA SHEET

Creation Date 22-Sep-2009

Revision Date 24-Dec-2021

Revision Number 4

### 1. Identification

**Product Name** 2-Ethylhexanoic acid

**Cat No. :** AC118520000; AC118520010; AC118520011; AC118520025;  
AC118520050; AC118520100; AC118525000

**CAS No** 149-57-5  
**Synonyms** 2-Ethylcapronic acid

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

##### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number** For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Skin Corrosion/Irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1
Reproductive Toxicity	Category 2

#### Label Elements

**Signal Word**  
Danger

**Hazard Statements**

Harmful if swallowed  
Harmful in contact with skin  
Causes severe skin burns and eye damage  
Suspected of damaging the unborn child

**Precautionary Statements****Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not eat, drink or smoke when using this product  
Wash face, hands and any exposed skin thoroughly after handling  
Do not breathe dust/fume/gas/mist/vapors/spray

**Response**

IF exposed or concerned: Get medical attention/advice

**Inhalation**

Call a POISON CENTER or doctor/physician if you feel unwell

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

**Skin**

Immediately call a POISON CENTER or doctor/physician

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

**Eyes**

Immediately call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**Ingestion**

Rinse mouth

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

**Storage**

Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

### 3. Composition/Information on Ingredients

Component	CAS No	Weight %
2-Ethylhexanoic acid	149-57-5	99

### 4. First-aid measures

**Eye Contact**

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

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation**

Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.

**Ingestion** Do NOT induce vomiting. Get medical attention.

**Most important symptoms and effects** Causes burns by all exposure routes.

**Notes to Physician** Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 114 °C / 237.2 °F

**Method -** No information available

**Autoignition Temperature** 310 °C / 590 °F

### Explosion Limits

**Upper** 6.00%

**Lower** .80%

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

### Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

### Protective Equipment and Precautions for Firefighters

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

### NFPA

**Health**  
3

**Flammability**  
1

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

**Environmental Precautions** See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Do not let this chemical enter the environment.

## 7. Handling and storage

**Handling** Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid ingestion and inhalation.

**Storage.** Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives area. Incompatible Materials. Bases. Reducing Agent.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
2-Ethylhexanoic acid	TWA: 5 mg/m <sup>3</sup>			TWA: 5 mg/m <sup>3</sup>

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**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.

## 9. Physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	Slight
Odor Threshold	No information available
pH	3 1.4g/L aq sol 20°C
Melting Point/Range	-59 °C / -74.2 °F
Boiling Point/Range	228 °C / 442.4 °F @ 760 mmHg
Flash Point	114 °C / 237.2 °F
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	6.00%
Lower	.80%
Vapor Pressure	0.04 mbar @ 20 °C
Vapor Density	4.98 (Air = 1.0)
Specific Gravity	0.906
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	310 °C / 590 °F
Decomposition Temperature	No information available
Viscosity	7.7 mPa s at 20 °C
Molecular Formula	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>
Molecular Weight	144.21

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products.

<b>Incompatible Materials</b>	Bases, Reducing Agent
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Ethylhexanoic acid	LD50 = 1600 mg/kg ( Rat )	LD50 = 1140 mg/kg ( Rabbit )	Not listed

**Toxicologically Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Irritation</b>	Causes burns by all exposure routes
<b>Sensitization</b>	No information available
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
2-Ethylhexanoic acid	149-57-5	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects** No information available

**Reproductive Effects** Experiments have shown reproductive toxicity effects on laboratory animals.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

Do not empty into drains. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
2-Ethylhexanoic acid	EC50: = 41 mg/L, 96h (Desmodesmus subspicatus) EC50: = 61 mg/L, 72h (Desmodesmus subspicatus)	LC50: = 70 mg/L, 96h (Pimephales promelas)	EC50 = 110 mg/L 17 h EC50 = 670 mg/L 30 min	EC50: = 85.4 mg/L, 48h (Daphnia magna)

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**Persistence and Degradability** Persistence is unlikely

**Bioaccumulation/ Accumulation** No information available.

**Mobility** . Will likely be mobile in the environment due to its water solubility.

Component	log Pow
2-Ethylhexanoic acid	2.7

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

#### DOT

UN-No UN3265  
 Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.  
 Hazard Class 8  
 Packing Group III

#### TDG

UN-No UN3265  
 Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.  
 Hazard Class 8  
 Packing Group III

#### IATA

UN-No UN3265  
 Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.  
 Hazard Class 8  
 Packing Group III

#### IMDG/IMO

UN-No UN3265  
 Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.  
 Hazard Class 8  
 Packing Group III

### 15. Regulatory information

#### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
2-Ethylhexanoic acid	149-57-5	X	ACTIVE	-

#### **Legend:**

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not applicable

#### International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
2-Ethylhexanoic acid	149-57-5	X	-	205-743-6	X	X	X	X	X	KE-13740

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### U.S. Federal Regulations

<b>SARA 313</b>	Not applicable
<b>SARA 311/312 Hazard Categories</b>	See section 2 for more information
<b>CWA (Clean Water Act)</b>	Not applicable
<b>Clean Air Act</b>	Not applicable
<b>OSHA - Occupational Safety and Health Administration</b>	Not applicable
<b>CERCLA</b>	Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

### **U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
2-Ethylhexanoic acid	-	X	-	-	-

### **U.S. Department of Transportation**

Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

### Other International Regulations

**Mexico - Grade** No information available

### **Authorisation/Restrictions according to EU REACH**

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
2-Ethylhexanoic acid	-	Use restricted. See item 75. (see link for restriction details)	-

<https://echa.europa.eu/substances-restricted-under-reach>

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
2-Ethylhexanoic acid	149-57-5	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
2-Ethylhexanoic acid	149-57-5	Not applicable	Not applicable	Not applicable	Annex I - Y34

## 16. Other information

Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
Creation Date	22-Sep-2009
Revision Date	24-Dec-2021
Print Date	24-Dec-2021
Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

### Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of SDS**