

# SAFETY DATA SHEET

Date Accessed: 04/19/2024

Date Revised: 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Name:** Iron(II) 2-Ethylhexanoate Monoisopropoxide

**Product Number:** All applicable American Elements product codes, e.g. FE-2EHIP-01-LIQ

**CAS #:** 331686-36-3

**Relevant identified uses of the substance:** Scientific research and development

**Supplier details:**

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

**Emergency telephone number:**

+1 800-424-9300

## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)

GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to the peripheral nervous system, the lung, the kidneys, the liver, the reproductive system and the brain through prolonged or repeated exposure. Route of exposure: Inhalative.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Hazards not otherwise classified No data available

GHS label elements, including precautionary statements



Hazard pictograms

GHS02 GHS07 GHS08

Signal word Danger

Hazard statements

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H336 May cause drowsiness or dizziness.

H373 May cause damage to the peripheral nervous system, the lung, the kidneys, the liver, the reproductive system and the brain through prolonged or repeated exposure. Route of exposure: Inhalative.

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P280 Wear protective gloves / protective clothing.

P273 Avoid release to the environment.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P315 Get immediate medical advice/attention.

WHMIS classification

B2 - Flammable liquid

D2A - Very toxic material causing other toxic effects

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH

FIRE

REACTIVITY

1

3

1

Health (acute effects) = 1

Flammability = 3

Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

CAS No. / Substance Name:

331686-36-3 Iron(II) 2-ethylhexanoate monoisopropoxide, 5% w/v in hexane

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## SECTION 4. FIRST AID MEASURES

Description of first aid measures

If inhaled:

Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

In case of skin contact:

Immediately wash with soap and water; rinse thoroughly.

Seek immediate medical advice.

In case of eye contact:

Rinse opened eye for several minutes under running water. Consult a physician.

If swallowed:

Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed

Unconsciousness

Cramp

Nausea

Gastric or intestinal disorders.

Headache

Indication of any immediate medical attention and special treatment needed:

No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing agents CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Metal oxide fume

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

Environmental precautions: Do not allow material to be released to the environment without official permits.

Methods and materials for containment and cleanup:

Keep away from ignition sources.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Prevention of secondary hazards: Keep away from ignition sources.

Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## SECTION 7. HANDLING AND STORAGE

### Handling

Precautions for safe handling

Handle under dry protective gas.

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires:

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Store away from water/moisture.

Further information about storage conditions:

Store under dry inert gas.

This product is moisture sensitive.

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Protect from humidity and water.

Specific end use(s) No data available

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

Hexane isomers, other than n-hexane

ppm

ACGIH TLV 500; 1000-STEL

Belgium TWA 500; 1000-STEL

Denmark TWA 300

Finland TWA 500; 625-STEL

France TWA 500

Germany TWA 200

Ireland TWA 500; 1000-STEL

Sweden TWA 200; 300-STEL

Switzerland TWA 500

Additional information: No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves

Inspect gloves prior to use.

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Eye protection: Safety glasses

Body protection: Protective work clothing.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Appearance:

Form: Liquid

Odor: Petrol-like

Odor threshold: No data available.

pH: No data available.

Melting point/Melting range: No data available

Boiling point/Boiling range: No data available

Sublimation temperature / start: No data available

Flash point: -22 °C (-8 °F) (Hexane)

Flammability (solid, gas) Highly flammable

Ignition temperature: No data available

Decomposition temperature: No data available

Autoignition: No data available.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures is possible.

Explosion limits:

Lower: 2.5 Vol %

Upper: 12 Vol %

Vapor pressure: No data available

Density: No data available

Relative density No data available.

Vapor density No data available.

Evaporation rate No data available.

Solubility in / Miscibility with

Water: Hydrolyzes

Partition coefficient (n-octanol/water): No data available.

Viscosity:

Dynamic: No data available.

Kinematic: No data available.

Other information No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity No data available

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions Reacts with strong oxidizing agents

Conditions to avoid No data available

Incompatible materials:

Oxidizing agents  
Water/moisture  
Hazardous decomposition products:  
Carbon monoxide and carbon dioxide  
Metal oxide fume

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## SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: No effects known.

LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: Causes skin irritation.

Eye irritation or corrosion: Causes serious eye irritation.

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.

Carcinogenicity: IARC-3: Not classifiable as to carcinogenicity to humans.

Reproductive toxicity: Suspected of damaging fertility or the unborn child.

Specific target organ system toxicity - repeated exposure:

May cause damage to the peripheral nervous system, the lung, the kidneys, the liver, the reproductive system and the brain through prolonged or repeated exposure. Route of exposure: Inhalative.

Specific target organ system toxicity - single exposure:

May cause drowsiness or dizziness.

May cause respiratory irritation.

Aspiration hazard: May be fatal if swallowed and enters airways.

Other information (about experimental toxicology): Reproductive effects have been observed on tests with laboratory animals.

Subacute to chronic toxicity:

Iron compounds may cause vomiting, diarrhea, pink urine, black stool, and liver damage. May cause damage to the kidneys. Irritating to the respiratory tract, they may cause pulmonary fibrosis if dusts are inhaled.

Subacute to chronic toxicity: No effects known.

Subacute to chronic toxicity:

Hexanes may cause skin irritation, CNS effects, lung irritation, headache, dizziness, drowsiness.

Isopropyl alcohol, if formed, may act as a local irritant and in high concentrations as a narcotic with symptoms such as headache, nausea, dizziness, vomiting,

mental depression, anesthesia, and coma. Similar symptoms may be caused by ingestion. It can cause corneal burns on contact with the eyes and has caused

teratogenic, mutagenic and reproductive effects in laboratory animals.

Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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## SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity: No data available

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Ecotoxicological effects:

Remark: Toxic for aquatic organisms

Additional ecological information:

Do not allow material to be released to the environment without official permits.

Toxic for aquatic organisms

Do not allow product to reach groundwater, water courses, or sewage systems, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic to aquatic life.

May cause long lasting harmful effects to aquatic life.

Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

Other adverse effects No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

Recommendation Consult official regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number

DOT, IMDG, IATA UN1208

UN proper shipping name

DOT Hexanes

IMDG HEXANES, MARINE POLLUTANT

IATA HEXANES

Transport hazard class(es)

DOT

Class 3 Flammable liquids.

Label 3

Class 3 (F1) Flammable liquids

Label 3

IMDG

Class 3 Flammable liquids.

Label 3

IATA

Class 3 Flammable liquids.

Label 3

Packing group

DOT, IMDG, IATA II

Environmental hazards: Environmentally hazardous substance, liquid; Marine Pollutant

Marine pollutant (IMDG): Symbol (fish and tree)

Special precautions for user Warning: Flammable liquids

EMS Number: F-E,S-D

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code N/A

Transport/Additional information:

DOT

Marine Pollutant (DOT): No  
Remarks: Special marking with the symbol (fish and tree).  
UN "Model Regulation": UN1208, Hexanes, 3, II

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## SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture  
GHS label elements, including precautionary statements

Hazard pictograms

GHS02 GHS07 GHS08

Signal word Danger

Hazard statements

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H315 Causes skin irritation.

H319 Causes serious eye irritation.

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Precautionary statements

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P280 Wear protective gloves / protective clothing.

P273 Avoid release to the environment.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P315 Get immediate medical advice/attention.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

SARA Section 313 (specific toxic chemical listings) Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer Substance is not listed.

Prop 65 - Developmental toxicity Substance is not listed.

Prop 65 - Developmental toxicity, female Substance is not listed.

Prop 65 - Developmental toxicity, male Substance is not listed.

Information about limitation of use: For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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## SECTION 16. OTHER INFORMATION



Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.