

ALFAA38607

Manganese(II) 2-ethylhexanoate, 40% w/w in mineral spirits

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

产品说明: 2-乙基己酸锰(II)溶液
Product Description: Manganese(II) 2-ethylhexanoate, 40% w/w in mineral spirits

Cat No. : 38607
Molecular Formula C16 H30 MN O4

Supplier Avocado Research Chemicals Ltd.
(Part of Thermo Fisher Scientific)
Shore Road, Heysham
Lancashire, LA3 2XY,
United Kingdom
Office Tel: +44 (0) 1524 850506
Office Fax: +44 (0) 1524 850608

Emergency Telephone Number For information **US** call: 001-800-227-6701 / **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

E-mail address begel.sdsdesk@thermofisher.com

Recommended Use Laboratory chemicals.
Uses advised against No Information available

SECTION 2. HAZARD IDENTIFICATION

Physical State
Liquid

Appearance
Brown

Odor
Petroleum distillates

Emergency Overview

May cause genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. Flammable liquid and vapor. May be fatal if swallowed and enters airways. Repeated exposure may cause skin dryness or cracking.

Classification of the substance or mixture

| | |
|--|-------------|
| Flammable liquids. | Category 3 |
| Aspiration Toxicity | Category 1 |
| Germ Cell Mutagenicity | Category 1B |
| Carcinogenicity | Category 1B |
| Specific target organ toxicity - (repeated exposure) | Category 1 |
| Chronic aquatic toxicity | Category 2 |

Label Elements

Manganese(II) 2-ethylhexanoate, 40% w/w in mineral spirits



Signal Word

Danger

Hazard Statements

H226 - Flammable liquid and vapor
H340 - May cause genetic defects
H350 - May cause cancer
H372 - Causes damage to organs through prolonged or repeated exposure
H304 - May be fatal if swallowed and enters airways
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention

P201 - Obtain special instructions before use
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233 - Keep container tightly closed
P240 - Ground and bond container and receiving equipment
P202 - Do not handle until all safety precautions have been read and understood
P270 - Do not eat, drink or smoke when using this product
P242 - Use non-sparking tools
P243 - Take action to prevent static discharges
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P331 - Do NOT induce vomiting
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Storage

P403 + P235 - Store in a well-ventilated place. Keep cool

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Physical and Chemical Hazards

Flammable liquid. Vapors may cause flash fire or explosion.

Health Hazards

May cause genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated exposure. Aspiration hazard if swallowed - can enter lungs and cause damage.

Environmental hazards

Toxic to aquatic life with long lasting effects. Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil. The product is insoluble and floats on water.

This product does not contain any known or suspected endocrine disruptors.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No | Weight % |
|---|------------|----------|
| Stoddard solvent | 8052-41-3 | 60.00 |
| Hexanoic acid, 2-ethyl-, manganese(2+) salt | 13434-24-7 | 40.00 |

SECTION 4. FIRST AID MEASURES

SAFETY DATA SHEET

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General Advice

If symptoms persist, call a physician.

Eye Contact

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

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. Risk of serious damage to the lungs (by aspiration).

Ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward.

Most important symptoms and effects

Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Notes to Physician

Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂). Powder. Water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions

Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not allow material to contaminate ground water system.

Methods for Containment and Clean Up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

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Refer to protective measures listed in Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

Storage

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks and flame.

Specific Use(s)

Use in laboratories

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Component | China | Taiwan | Thailand | Hong Kong |
|------------------|-------|--|----------|--|
| Stoddard solvent | - | TWA: 100 ppm TWA: 525 mg/m ³ | | TWA: 100 ppm TWA: 525 mg/m ³ |

| Component | ACGIH TLV | OSHA PEL | NIOSH | The United Kingdom | European Union |
|---|--------------|---|--|--------------------|----------------|
| Stoddard solvent | TWA: 100 ppm | (Vacated) TWA: 100 ppm (Vacated) TWA: 525 mg/m ³ TWA: 500 ppm TWA: 2900 mg/m ³ | IDLH: 20000 mg/m ³ TWA: 350 mg/m ³ Ceiling: 1800 mg/m ³ | - | |
| Hexanoic acid, 2-ethyl-, manganese(2+) salt | | (Vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ | IDLH: 500 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³ | - | |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS70 General methods for sampling airborne gases and vapours MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography MDHS 91 Metals and metalloids in workplace air by X-ray fluorescence spectrometry MDHS 99 Metals in air by ICP-AES

Exposure Controls**Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment**Eye Protection**

Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection

Protective gloves

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| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|----------------|-----------------------------------|-----------------|-------------|-----------------------|
| Viton (R) | See manufacturers recommendations | - | EN 374 | (minimum requirement) |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.
(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection Long sleeved clothing

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Organic gases and vapours filter low boiling organic solvent Type AX Brown conforming to EN371 or Type A Brown conforming to EN14387

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141
When RPE is used a face piece Fit Test should be conducted

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water system.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|--|--------------------------|--|
| Appearance | Brown | |
| Physical State | Liquid | |
| Odor | Petroleum distillates | |
| Odor Threshold | No data available | |
| pH | No information available | |
| Melting Point/Range | No data available | |
| Softening Point | No data available | |
| Boiling Point/Range | No information available | |
| Flash Point | 40 °C / 104 °F | Method - No information available |
| Evaporation Rate | No data available | |
| Flammability (solid,gas) | Not applicable | Liquid |
| Explosion Limits | No data available | |
| Vapor Pressure | 23 hPa @ 20 °C | |
| Vapor Density | No data available | (Air = 1.0) |
| Specific Gravity / Density | 0.897 g/cm3 | @ 20 °C |
| Bulk Density | Not applicable | Liquid |
| Water Solubility | Immiscible | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Component | log Pow | |
| Stoddard solvent | 6.4 | |
| Autoignition Temperature | No data available | |
| Decomposition Temperature | No data available | |

SAFETY DATA SHEET**Manganese(II) 2-ethylhexanoate, 40% w/w in mineral spirits**

| | | |
|-----------------------------|--------------------------|--|
| Viscosity | No data available | |
| Explosive Properties | | explosive air/vapour mixtures possible |
| Oxidizing Properties | No information available | |
| Molecular Formula | C16 H30 MN O4 | |
| Molecular Weight | 341.35 | |

SECTION 10. STABILITY AND REACTIVITY

| | |
|---------------------------------|---|
| Stability | Stable under normal conditions. |
| Hazardous Reactions | None under normal processing. |
| Hazardous Polymerization | No information available. |
| Conditions to Avoid | Keep away from open flames, hot surfaces and sources of ignition. |
| Materials to avoid | Oxidizing agent. |

Hazardous Decomposition Products Carbon monoxide (CO). Carbon dioxide (CO₂). Manganese oxides.

SECTION 11. TOXICOLOGICAL INFORMATION**Product Information**

(a) acute toxicity;
Toxicology data for the components

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------|-----------------------|------------------------------|-----------------------------|
| Stoddard solvent | 5000 mg/kg (orl, rat) | LD50 > 3000 mg/kg (Rabbit) | LC50 > 5.5 mg/L (Rat) 4 h |

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;
Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; Category 1B

(f) carcinogenicity; Category 1B
 The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component | EU | UK | Germany | IARC |
|------------------|--------------|----|---------|------|
| Stoddard solvent | Carc Cat. 1B | | | |

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; Category 1

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Target Organs Central nervous system (CNS).

(j) aspiration hazard; Category 1

Symptoms / effects, both acute and delayed Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Persistence and Degradability Product contains heavy metals. Discharge into the environment must be avoided. Special pre-treatment is necessary
Persistence Immiscible with water, May persist.
Degradation in sewage treatment plant Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulative Potential May have some potential to bioaccumulate; Product has a high potential to bioconcentrate

| Component | log Pow | Bioconcentration factor (BCF) |
|------------------|---------|-------------------------------|
| Stoddard solvent | 6.4 | No data available |

Mobility in soil Spillage unlikely to penetrate soil The product is insoluble and floats on water Is not likely mobile in the environment due its low water solubility

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant This product does not contain any known or suspected substance
Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not let this chemical enter the environment. Do not empty into drains.

SECTION 14. TRANSPORT INFORMATION**Road and Rail Transport**

UN-No UN1268
Proper Shipping Name Petroleum distillates, n.o.s.
Hazard Class 3
Packing Group III

SAFETY DATA SHEET**Manganese(II) 2-ethylhexanoate, 40% w/w in mineral spirits****IMDG/IMO**

UN-No UN1268
Proper Shipping Name Petroleum distillates, n.o.s.
Hazard Class 3
Packing Group III

IATA

UN-No UN1268
Proper Shipping Name Petroleum distillates, n.o.s.
Hazard Class 3
Packing Group III

Special Precautions for User No special precautions required

SECTION 15. REGULATORY INFORMATION**International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

| Component | The Inventory of Hazardous Chemicals (2015 Edition) | List of dangerous goods GB 12268 - 2012 | TCSI | IECSC | EINECS | TSCA | DSL | PICCS | ENCS | ISHL | AICS | KECL |
|---|---|---|------|-------|-----------|------|-----|-------|------|------|------|----------|
| Stoddard solvent | - | X | X | X | 232-489-3 | X | X | X | - | | X | KE-32199 |
| Hexanoic acid, 2-ethyl-, manganese(2+) salt | - | - | X | X | 236-562-0 | X | X | X | X | X | X | - |

National Regulations**SECTION 16. OTHER INFORMATION**

Prepared By Health, Safety and Environmental Department
Revision Date 08-May-2024
Revision Summary New emergency telephone response service provider.

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Legend

CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

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IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit
ACGIH - American Conference of Governmental Industrial Hygienists
DNEL - Derived No Effect Level
RPE - Respiratory Protective Equipment
LC50 - Lethal Concentration 50%
NOEC - No Observed Effect Concentration
PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average
IARC - International Agency for Research on Cancer
PNEC - Predicted No Effect Concentration
LD50 - Lethal Dose 50%
EC50 - Effective Concentration 50%
POW - Partition coefficient Octanol:Water
vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road
OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code
MARPOL - International Convention for the Prevention of Pollution from Ships
ATE - Acute Toxicity Estimate
VOC - (Volatile Organic Compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

| | |
|------------------------------|-----------------------|
| Physical hazards | On basis of test data |
| Health Hazards | Calculation method |
| Environmental hazards | Calculation method |

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 Safety Data Sheet