SIGMA-ALDRICH

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SAFETY DATA SHEET

Version 5.3 Revision Date 04/21/2015 Print Date 11/05/2018

| 1. PF | RODUCT AND COMPANY I | DEN | TIFICATION |
|-------|-------------------------------------|-------|--|
| 1.1 | Product identifiers Product name | : | 2-Methyl-2-pentenoic acid |
| | Product Number Brand | : | W319519 Aldrich |
| | CAS-No. | : | 3142-72-1 |
| 1.2 | Relevant identified uses | of th | ne substance or mixture and uses advised against |
| | Identified uses | : | Laboratory chemicals, Manufacture of substances |
| 1.3 | Details of the supplier of | f the | safety data sheet |
| | Company | : | Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA |
| | Telephone Fax | : | +1 800-325-5832 +1 800-325-5052 |
| 1.4 | 1.4 Emergency telephone number | | er |
| | Emergency Phone # | : | +1-703-527-3887 (CHEMTREC) |
| 2. HA | ZARDS IDENTIFICATION | | |

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Skin corrosion (Category 1B), H314

Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

| A |
|--------------|
| \checkmark |

| Signal word | Danger |
|--|---|
| Hazard statement(s) H314 | Causes severe skin burns and eye damage. |
| Precautionary statement(s) P260 P264 P280 | Do not breathe dust or mist. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P301 + P330 + P331 P303 + P361 + P353 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. |
| P304 + P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position 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. |

| P310 | Immediately call a POISON CENTER or doctor/ physician. |
|------|---|
| P321 | Specific treatment (see supplemental first aid instructions on this label). |
| P363 | Wash contaminated clothing before reuse. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

| 3.1 | Substances | | |
|-----|------------------|---|---|
| | Formula | : | C ₆ H ₁₀ O ₂ |
| | Molecular weight | : | 114.14 g/mol |
| | CAS-No. | : | 3142-72-1 |
| | EC-No. | : | 221-552-0 |

Hazardous components

| Component | Classification | Concentration |
|--|----------------------------|---------------|
| 2-methylpent-2-en-1-oic acid | | |
| | Skin Corr. 1B; Eye Dam. 1; | <= 100 % |
| | H314 | |
| For the full tout of the LL Otatements montioned in this C | atten and Oration 40 | • |

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information No data available

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
- 6.2 Environmental precautions Do not let product enter drains.
- 6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- **6.4 Reference to other sections** For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| a) | Appearance | Form: solid |
|-----|--|--|
| b) | Odour | No data available |
| c) | Odour Threshold | No data available |
| d) | рН | No data available |
| e) | Melting point/freezing point | Melting point/range: 26 - 28 °C (79 - 82 °F) |
| f) | Initial boiling point and boiling range | 207 - 208 °C (405 - 406 °F) - lit. |
| g) | Flash point | 108 °C (226 °F) - closed cup |
| h) | Evaporation rate | No data available |
| i) | Flammability (solid, gas) | No data available |
| j) | Upper/lower flammability or explosive limits | No data available |
| k) | Vapour pressure | No data available |
| I) | Vapour density | No data available |
| m) | Relative density | 0.982 g/cm3 at 25 °C (77 °F) |
| n) | Water solubility | No data available |
| o) | Partition coefficient: n- octanol/water | No data available |
| p) | Auto-ignition temperature | No data available |
| q) | Decomposition temperature | No data available |
| r) | Viscosity | No data available |
| s) | Explosive properties | No data available |
| t) | Oxidizing properties | No data available |
| Oth | ner safety information | |
| | | |

9.2 Other safety information No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity No data available

- **10.2** Chemical stability Stable under recommended storage conditions.
- **10.3** Possibility of hazardous reactions No data available
- **10.4 Conditions to avoid** No data available
- **10.5** Incompatible materials Strong oxidizing agents
- **10.6 Hazardous decomposition products** Other decomposition products - No data available In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory or skin sensitisation No data available

Germ cell mutagenicity

No data available

Carcinogenicity

- IARC: 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.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

No data available

Specific target organ toxicity - single exposure No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability No data available

12.3 Bioaccumulative potential No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 3261 Class: 8 Packing group: III Proper shipping name: Corrosive solid, acidic, organic, n.o.s. (2-methylpent-2-en-1-oic acid) Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG

UN number: 3261 Class: 8 Packing group: III EMS-No: F-A, S-B Proper shipping name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (2-methylpent-2-en-1-oic acid)

ΙΑΤΑ

UN number: 3261 Class: 8 Packing group: III Proper shipping name: Corrosive solid, acidic, organic, n.o.s. (2-methylpent-2-en-1-oic acid)

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

| Pennsylvania Right To Know Components | | |
|---------------------------------------|----------------------|---------------|
| 2 mathulaant 2 on 1 oig goid | CAS-No. 3142-72-1 | Revision Date |
| 2-methylpent-2-en-1-oic acid | 5142-72-1 | |
| New Jersey Right To Know Components | CAS-No. | Revision Date |
| 2-methylpent-2-en-1-oic acid | 3142-72-1 | Revision Date |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

| H318 Skin Corr. HMIS Rating | Causes serious eye damage. Skin corrosion |
|-----------------------------------|--|
| Eye Dam. | Serious eye damage |
| H314 | Causes severe skin burns and eye damage. |

| Health hazard: Chronic Health Hazard: | 3 | |
|--|--------|--|
| Flammability: | 1 | |
| Physical Hazard | 0 | |
| | | |
| NFPA Rating | | |
| NFPA Rating Health hazard: | 3 | |
| • | 3 1 | |

Further information

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Preparation Information

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

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