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1. Identification

Product identifier JASMONEIGE / Methyl jasmonate

Other means of identification Not available

Recommended use of the chemical and restrictions on use

Recommended use Food additives (fragrances), cosmetic fragrances, etc. It has jasmine

fragrance and adds jasmine-like fragrances.

Restrictions on use Not available

Supplier/Manufacturer

Company name Zeon Corporation

Address 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-8246, Japan

Responsible department Product Technology Department, Specialty Materials Division

Telephone number +81-3-3216-0542 **FAX** +81-3-3216-1303

E-mail kg_sds@ml.zeon.co.jp

Emergency telephone number +81-3-3216-0542 (9:00~17:00 Japan time, Weekdays only)

2. Hazard identification

GHS classification

Skin sensitization Category 1
Hazardous to Aquatic Environment-Acute Hazard Category 3

Hazards not described are "Not classified", "Not applicable" or "Classification not possible".

Label content

Hazard pictogram or symbol



Signal word Warning

Hazard statement(s)

May cause an allergic skin reaction

Harmful to aquatic life

Precautionary statement(s)

Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray.

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Contaminated work clothing must not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Response

If on skin: Wash with plenty of water.

Specific treatment (see section 4 on this SDS).

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Storage

None

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards information not included in hazard classification:

Not available

3. Composition/information on ingredients

Distinction of substance or mixture: Substance

Chemical name	Common name(Synonyms)	CAS number	Content
Cyclopentaneacetic acid, 3-oxo-2-(2-	Cyclopentaneacetic acid, 3-	39924-52-2	100%
penten-1-yl)-, methyl ester	oxo-2-(2-pentenyl)-, methyl		
	ester,		
	Methyl jasmonate		

4. First-aid measures

Description of necessary measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Get medical advice/attention if you feel unwell.

Skin contact

Take off immediately all contaminated clothing.

Rinse skin with water/take a shower.

If skin irritation occurs: Get medical advice/attention.

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Get medical advice/attention if you feel unwell.

Wash contaminated clothing before reuse.

Eye contact

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth.

Get medical advice/attention if you feel unwell.

Most important symptoms/effects, acute and delayed

Not available

Indication of immediate medical attention and special treatment needed, if necessary

Not available

5. Fire-fighting measures

Suitable extinguishing media

Extinguish the fire by suffocation using dry powder fire extinguishing agent, foam fire extinguishing agent, carbon dioxide, etc.

Unsuitable extinguishing media

Water such as water jet, water spray.

Specific hazards arising from the chemical

The combustion gas contains toxic gases such as carbon monoxide. Avoid inhaling smoke when extinguishing the fire.

Heating by the fire may damage the container and cause the contents to ignite and explode.

Special protective equipment and precautions for fire-fighters

Extinguish the fire in the upwind direction.

In case of a fire in the surrounding area, immediately remove movable containers to safe place.

Keep storage container at low temperature with water spray if possible.

Keep unauthorized personnel away from the surrounding of fire site.

Evacuate unauthorized personnel to a safe place.

Use dry powder fire extinguishing agent, foam fire extinguishing agent, carbon dioxide, etc. to extinguish the fire.

Do not use water jet or water spray when it is burning in a liquid pool or container.

When extinguishing the fire, wear appropriate protective equipment (gloves, glasses, masks, air respirator, protective clothing, etc.).

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Protective equipment (gloves, goggles, masks, etc.) must be worn during operation.

Evacuate the crowd to a safe place in case of a large amount of spillage.

Ensure ventilation as needed.

Environmental precautions

It is forbidden to discharge the spillage directly into rivers and sewers.

Methods and material for containment and cleaning up

In case of a small amount of spillage, use absorbents (soil, sand, waste clothes, etc.) to absorb and remove it, and then wipe off the residue thoroughly with waste cloth, rag, etc.

Rinse with plenty of water.

In case of a large amount of spillage, use earth mounds to construct a dike to prevent the overflow, guide the spillage to a safe place before recovering it into drum and other containers.

Stop leak if safe to do so.

Prevention measures for secondary disasters

Immediately eliminate nearby items that can become ignition sources, and prepare fire extinguishing agents at the same time.

Prevent it from flowing into drains, sewers, basements or enclosed places.

Use non-sparking safety tools and equipment during handling.

Leaving the spillage on the floor can easily cause a slip, so care should be taken.

Do not walk on the spillage.

Isolate the place until the gas has completely diffused.

The container of the recovered content should be sealed for storage until the recovered content is completely disposed of.

7. Handling and storage

Precautions for safe handling

Eye-washing and shower equipment should be installed near the workplace.

Ground/bond containers and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use non-sparking tools.

Take precautionary measures against static discharge.

No fire.

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Keep away from heat/sparks/open flames/hot surfaces and other ignition sources.- No smoking.

Keep container tightly closed.

Do not make the container tip, fall down and be hit, or handle the container in a rough manner such as dragging.

Wear protective gloves, eye protection, and face protection.

Conditions to avoid: Avoid contact with oxidizing solids and oxidizing liquids.

Hygiene measures: Wash hands, etc. thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Keep away from heat/sparks/open flames and other ignition sources.

No fire.

Keep containers tightly closed, store in a well-ventilated place.

Keep cool.

Necessary measures shall be taken to prevent containers from easily falling or overturning due to earthquakes, etc., or being damaged by other falling objects.

Safe materials for containers/packaging: Use the container specified by the relevant laws and regulations.

8. Exposure controls/personal protection

Occupational exposure limits

OSHA (PELs) Not available ACGIH (TLVs) Not available

Biological limits

ACGIH Not available

Appropriate engineering controls

Use appropriate explosion-proof ventilation devices.

When vapors, fumes or mist are generated, local exhaust ventilation devices should be installed.

Personal protective equipment

Respiratory protection Wear appropriate respiratory protection as needed.

Hand protection Wear protective gloves.

Eye/face protection Wear protective glasses and face protection.

Skin protection Wear protective gloves, eye protection, face protection, and, if

necessary, protective clothing that covers the skin and body.

9. Physical and chemical properties

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Appearance (physical state, color, Colorless ~ pale yellow / pale orange transparent liquid (REACH

etc.) Registration Application Data (2022))

Odor Jasmine fragrance
Odor threshold Not available

pH Not applicable because it is not an aqueous solution

Melting point/freezing point <-20°C (REACH Registration Application Data (2022))

Initial boiling point and boiling 301°C (REACH Registration Application Data (2022))

range

Flash point 152°C (Seta Closed Cup) (REACH Registration Application Data

(2022))

Evaporation rate Not available

Flammability (solid, gas) Combustible liquid with a flash point of 152°C

Upper/lower flammability or Upper: Not available; explosive limits Lower: Not available

Vapor pressure 6.32 x 10⁻² Pa (25°C) (REACH Registration Application Data

(2022))

Vapor density Not available

Density and / or relative density 1.02 (20°C) (REACH Registration Application Data (2022))

Solubility (ies) Solubility in water 1.15 g/L (20°C) (REACH Registration

Application Data (2022))

Partition coefficient:n-octanol/water log Pow=2.66 (30°C) (REACH Registration Application Data

(2022))

Auto-ignition temperature 294°C (REACH Registration Application Data (2022))

Decomposition temperatureNot availableViscosityNot available

Relative vapor density 7.7 (20°C air standard (molecular weight 29))

Particle characteristics Not applicable for liquids

10. Stability and reactivity

Reactivity

Not pyrophoric and does not react violently with water.

There is no data on self-heating properties, so it cannot be classified under GHS, but there is no information or experience regarding heat generation during normal handling.

There is no data on corrosive to metals, so it cannot be classified under GHS, but it is considered to be an

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organic compound with no acidic groups, and it is not an aqueous solution but an organic monomer, and is therefore considered to be low corrosive.

Chemical stability

Although it contains atomic groups (unsaturated bonds) in its molecule that is related to self-reactivity, there is no information or experience that rapid polymerization occurs under normal storage and use conditions.

Possibility of hazardous reactions

It does not contain atomic groups related to explosiveness in its molecule, it is stable under normal storage and use conditions.

Conditions to avoid

Avoid contact with heat sources, fire, sparks, static discharge, etc., as it is combustible liquid with a flash point.

Incompatible materials

Avoid contact with oxidizing solids and oxidizing liquids.

Hazardous decomposition products

Not available

11. Toxicological information

Acute toxicity

Oral

Not classified.

Rat (male and female)LD₅₀>2000 mg/kg (REACH Registration Application Data (2022)

Dermal

Classification not possible.

Inhalation

Gases: This product is liquid according to the GHS definition and is "Not applicable".

Vapors: Classification not possible.

Dusts/mists: Classification not possible.

Skin corrosion/irritation

Not classified according to the test results based on OECD TG 404, OECD TG 301 and OECD TG 439. (REACH Registration Application Data (2022)–

Serious eye damage/irritation

Classification not possible.

It was "Not classified" based on the evaluation result of OECD TG 437 in vitro / ex vivo, Bovine Corneal Opacity and Permeability (BOCP) (REACH registration application data (2022)), however, there is no data on eye irritation, so it was classified as "Classification not possible".

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Respiratory sensitization

Classification not possible.

Skin sensitization

Category 1

- (1) In chemico, OECD 442C (DPRA) Positive
- (2) In vitro, OECD 442D (ARE-Nrf2 Luciferase Test) Negative
- (3) In vitro, OECD 442E (h-CLAT) Positive
- ((1)(2)(3) REACH Registration Application Data (2022)

Germ cell mutagenicity

Classification not possible.

Negative in the bacterial reverse mutation test (REACH Registration Application Data (2022), but there is no data about in vivo test, so it was classified as "Classification not possible".

Carcinogenicity

Classification not possible.

Reproductive toxicity

Classification not possible.

Specific target organ toxicity (Single Exposure)

Classification not possible.

Specific target organ toxicity (Repeated Exposure)

Classification not possible.

Aspiration hazard

Classification not possible.

12. Ecological information

Ecotoxicity

Hazardous to Aquatic Environment-Acute Hazard: Category 3

- (1) 48-hour EC₅₀ for daphnia based on OECD 202 = 35 mg/L (95% confidence interval 30-42 mg/L), NOEC
- = 18 mg/L, LOEC = 32 mg/L (REACH Registration Application Data (2022)
- (2) Algae growth inhibition based on OECD 201: 72-hour $ErC_{50} = 64mg/L$, NOEC = 3.2mg/L, LOEC= 10 mg/L (REACH Registration Application Data (2022)

Hazardous to Aquatic Environment-Chronic Hazard: Not classified.

- (1) There is no sufficient chronic toxicity data for the three nutritional stages.
- (2) Readily degradable (REACH Registration Application Data (2022)
- (3) Algae growth inhibition test 72h NOEC=3.2 mg/L (REACH Registration Application Data (2022)

Persistence and degradability

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It is a substance with good degradability. (REACH Registration Application Data (2022))

Bioaccumulative potential

Log Pow = 2.66 (30°C), it is presumed to have low bioaccumulation.

Mobility in soil

Log Pow = $2.66 (30^{\circ}\text{C})$, solubility in water is $1.15 \text{ g/L} (20^{\circ}\text{C})$, so it is presumed to have high environmental mobility (mobility in soil).

Other adverse effects

Hazardous to the ozone layer: Classification not possible.

This substance is not listed in the Annex of Montreal Protocol.

13. Disposal consideration

Remaining wastes

Entrust an industrial waste processor licensed by the local government or a local administration that handles the business to dispose.

Dispose of waste in accordance with relevant laws and regulations as well as local government regulations.

Contaminated container and packaging

Recycle containers after they are cleaned, or dispose of them properly in accordance with relevant regulations as well as local regulations.

Empty containers should be disposed of after the contents are completely removed.

14. Transportation information

UN number

UN proper shipping name

Transport hazard class(es)

Packing group

Not applicable

Not applicable

Marine pollutant (Yes/No) No

Transport in bulk (according to Annex II of Not applicable

MARPOL 73/78 and the IBC Code)

Special precautions

Do not transport with food and feedstuffs together.

Avoid direct sunlight during transport. Load containers carefully to avoid damage, corrosion and leakage.

Prevent the cargo from collapsing.

Do not place heavy objects on top.

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15. Regulatory information

TSCA Inventory Listed (Cyclopentaneacetic acid, 3-oxo-2-(2-penten-1-yl)-,

methyl ester)

Occupational Safety and Health Act

Air contaminants

Highly hazardous chemicals

HCS 2012

Regulated

CERCLA Regulation

Not regulated

EPCRA 302 Regulation

Not regulated

EPCRA 304 Regulation

Not regulated

Not regulated

Not regulated

Not regulated

Not regulated

16. Other information

References

1) GHS Classification Guidance for Enterprises (FY2019 Revised Edition (Ver. 2.0) Ministry of Economy,

Trade and Industry)

2) JIS Z 7252: 2019

3) JIS Z 7253: 2019

4) ECHA REACH Registration Application Data (2022)

5) NITE CSCL Database

6) GHS Rev. 8

7) Other descriptions in the data department

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Notice to reader:

This SDS is prepared based on Hazard Communication, Final Rule, Federal Register, Vol. 77, No. 58. The information provided in this SDS are based on currently available materials, information, and other data, however, we cannot assume any liability for the accuracy of the information contained. All chemical products may have unknown, potentially hazardous characteristics. It is recommended that handling should be done with caution.

The sign "-" included above means no relevant information.