

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product code C137067
Product name Biocyclamol

Other means of identification

Synonyms No information available

Recommended use of the chemical and restrictions on use

Recommended use Concentrated aromatic raw material intended for manufacturing use

Details of the Supplier of the Safety Data Sheet

Supplier Address

Takasago International Corporation (USA)
 4 Volvo Drive
 Rockleigh, NJ 07647 USA
 Phone: 1-201-767-9001

Emergency telephone number

Company Phone Number Health & Environmental: 1-201-767-9001 9 a.m - 5 p.m. EST M-F

Emergency telephone number

CHEMTREC: 1-800-424-9300 24 hours Everyday
 CHEMTREC (International): 01-703-527-3887 [U.S.A.] 24 hours Everyday

2. Hazard identification

Classification

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

| | |
|---------------------------|-------------|
| Skin corrosion/irritation | Category 2 |
| Skin Sensitization | Category 1B |

Label Elements

Warning

Hazard Statements

Causes skin irritation
 May cause an allergic skin reaction



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Disposal

Dispose of contents/containers in accordance with local regulations

Hazards Not Otherwise Classified (HNOC)

None known

Other information

Other Hazards None known

3. Composition/information on Ingredients

Formula C15H28O
Hazardous components

| | CAS No | Concentration | GHS Classification |
|-----------------------|------------|---------------|--|
| Dihydrofarnesol/laevo | 51411-24-6 | >90 | Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) |

4. First aid measures

FIRST AID MEASURES

General advice When in doubt or if symptoms are observed, get medical advice.

Inhalation Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.

Skin contact Change contaminated, saturated clothing. After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

Eye contact In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Ingestion If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.

Self-protection of the first aider Use personal protection recommended in Section 8.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms No known symptoms to date.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Foam. Carbon dioxide (CO2). Dry extinguishing powder.

Large Fire Alcohol resistant foam. Water spray.

Unsuitable extinguishing media Full water jet.

Special hazards arising from the substance or mixture

In case of fire may be liberated, Carbon monoxide, Carbon dioxide (CO₂), Burning produces heavy smoke, Do not inhale explosion and combustion gases.

Protective equipment and precautions for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Use water spray jet to protect personnel and to cool endangered containers. Move undamaged containers from immediate hazard area if it can be done safely. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Remove all sources of ignition. Provide adequate ventilation as well as local exhaust at critical locations. See section 7 for more information.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

Methods and material for containment and cleaning up

Methods for cleaning up Clean contaminated surface thoroughly.

7. Handling and Storage

Precautions for Safe Handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Wear protective gloves and eye/face protection. See Section 8 for information on appropriate personal protective equipment. Remove all sources of ignition. Provide adequate ventilation as well as local exhaust at critical locations. Handle and open container with care.

Conditions for safe storage, including any incompatibilities

Storage conditions Keep container tightly closed in a cool, well-ventilated place. Store in a dry place. Protect from direct sunlight. Remove all sources of ignition. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

8. Exposure Controls/Personal Protection

Control Parameters

Exposure guidelines This product does not contain any substances with occupational exposure limits established by OSHA under 29 CFR 1910 subpart Z, ACGIH or NIOSH

Appropriate Engineering Controls

Engineering controls Provide adequate ventilation as well as local exhaust at critical locations. Do not subject to unnecessarily high temperatures during processing.

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------------|---|
| Eye/face protection | Eye glasses with side protection. |
| Hand protection | Wear chemically resistant gloves in combination with 'basic' employee training. |
| Skin and body protection | Wear appropriate personal protective clothing to prevent skin contact. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. |
| General Hygiene Considerations | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product. |

9. Physical and Chemical Properties

Information on basic physical and chemical properties

| | | |
|---|--------------------------|---|
| Appearance | Liquid | |
| Color | Colorless to pale yellow | |
| Odor | Characteristic | |
| Odor threshold | No data available | |
| Property | VALUES | Remarks • Method |
| pH | No data available | |
| Melting point / freezing point | no melting point | OECD Test No. 102: Melting Point/ Melting Range |
| Boiling point / boiling range | 298.8 °C / 570 °F | OECD Test No. 103: Boiling Point |
| Flash point | 149 °C / 300 °F | CC (closed cup), Regulation (EC) No. 440/2008, Annex, A.9 |
| Evaporation rate | No data available | |
| Flammability (solid, gas) | | |
| Flammability limit in air | | |
| Upper flammability limit | No data available | |
| Lower flammability limit | No data available | |
| Vapor pressure | 0.00913 Pa @25°C | OECD Test No. 104: Vapor Pressure |
| Vapor density | No data available | |
| Relative Density | 0.867-0.873 (D20°C/20°C) | |
| Relative Density | No data available | |
| Water solubility | 3.08 mg/l (20°C) | OECD Test No. 105: Water Solubility |
| Solubility in other solvents | No data available | |
| Partition coefficient: n-octanol/water | Log Pow = 5.7 | OECD Test No. 117: Partition Coefficient (n-octanol/water), HPLC Method ASTM E 659 |
| Autoignition temperature | 247 °C / 477 °F | |
| Decomposition temperature | No data available | |
| Kinematic viscosity | No data available | |
| Dynamic viscosity | No data available | |
| Explosive Properties | No data available | |
| Oxidizing Properties | No data available | |

Other information

| | |
|-------------------------|------------------------------------|
| Molecular weight | 224.39 |
| Refractive Index | 1.471-1.477 (n _{20°C/D}) |

10. Stability and Reactivity

Reactivity

None under normal use conditions.

Chemical stability

Stable under normal conditions. Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight. Do not heat closed containers.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous decomposition products

None under normal use.

11. Toxicological Information

Information on Likely Routes of Exposure

| | |
|----------------------------|--------------------|
| Product Information | No data available. |
| Inhalation | No data available. |
| Eye contact | No data available. |
| Skin contact | No data available. |
| Ingestion | No data available. |

Information on Toxicological Effects

Symptoms No information available.

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

| | |
|---|--|
| Skin corrosion/irritation | This product was tested at 2% in lanolin on 30 human subjects and produced no irritation after a 45 hour closed-patch test. This product was a primary skin irritant when tested on guinea pigs at 10% in acetone. No effects were observed when tested at 5% in acetone. Irritant, Cell viability = 41.2% (EpiDerm - OECD 439). Non-corrosive, Cell viability 3 min = 97.3%, 60 min = 108.9% (EpiDerm - OECD 431). |
| Serious eye damage/irritation | Non-irritant, IVIS = -0.4 (BCOP - OECD 437). |
| Respiratory or skin sensitization | A delayed contact hypersensitivity test was conducted on guinea pigs and was not considered a sensitizer at 2% in acetone. It was considered a weak sensitizer at 5% in acetone. Skin sensitizer, EC3 = 21.4% (LLNA - OECD 429). |
| Germ cell mutagenicity | Not mutagenic in AMES Test. |
| Carcinogenicity | This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. |
| Reproductive toxicity | No information available. |
| Specific target organ toxicity - Single exposure | No information available. |
| Specific target organ toxicity - Repeated exposure | No information available. |
| Aspiration hazard | No information available. |

Numerical Measures of Toxicity - Product Information

Oral LD50 > 2000 mg/kg. (rats). OECD Test No. 423: Acute Oral toxicity - Acute Toxic Class Method.

12. Ecological Information

Ecotoxicity Very toxic to aquatic life with long lasting effects
Acute toxicity
Algae: EC50 (72h) 1.43 mg/L, NOEC (72h) = 0.0774 mg/L, Pseudokirchneriella subcapitata, OECD Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test
Crustacea: EC50 (48h) = 0.209 mg/L, NOEC (48h) = 0.126 mg/L, Daphnia magna (Water flea), OECD Test No. 202: Daphnia sp., Acute Immobilization Test

Persistence and degradability Readily biodegradable, average biodegradation = 99% (BOD), OECD Test No. 301C: Ready Biodegradability: Modified MITI Test (I) (TG 301 C).

Bioaccumulative potential No information available

Other adverse effects No information available

13. Disposal Considerations

Waste Treatment Methods

Waste disposal method Dispose of in accordance with local regulations.

Contaminated packaging Do not reuse container.

14. Transport Information

DOT Non-bulk Packaging

| | |
|-----------------------------|---------------|
| UN/ID no | Not regulated |
| Proper Shipping Name | Not regulated |
| Hazard Class | Not regulated |
| Packing group | Not regulated |
| Marine Pollutant | Not regulated |

Air transport (ICAO-TI / IATA-DGR)

| | |
|-----------------------------|--|
| UN/ID no | 3082 |
| Proper Shipping Name | Environmentally hazardous substances, liquid, n.o.s. (Dihydrofarnesol/laevo) |
| Hazard Class | 9 |
| Packing group | III |

Sea transport (IMDG)

| | |
|-----------------------------|--|
| UN/ID no | 3082 |
| Proper Shipping Name | Environmentally hazardous substances, liquid, n.o.s. (Dihydrofarnesol/laevo) |
| Hazard Class | 9 |
| Packing group | III |
| EmS No | F-A, S-F |
| Marine Pollutant | Yes |

15. Regulatory Information

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazardous Categorization -

| | |
|-----------------------------------|-----|
| Acute health hazard | Yes |
| Chronic health hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

16. Other Information

Revision date 30-Aug-2018

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. Where the handling, storage and disposal of this material is beyond the immediate control of Takasago, it shall be the user's responsibility to determine safe conditions for use of this product. The user assumes all liability for loss, injury, damage or expense resulting from the improper use of this product.

End of Safety Data Sheet