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

trans, trans, cis -1,5,9-Cyclododecatriene Product name

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008 Acute toxicity, Inhalation (Category 3) Chronic aquatic toxicity (Category 2)

According to European Directive 67/548/EEC as amended.

Harmful by inhalation. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label elements Pictogram

Danger

Signal word Hazard statement(s)

H331

Toxic if inhaled.

Toxic to aquatic life with long lasting effects. H411

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid release to the environment. P273

Hazard symbol(s)

P311 Call a POISON CENTER or doctor/physician. Xn Harmful

N

Dangerous for the environment

Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2; H331, H411 Xn, N, R20 - R51/53

Classification

Acute Tox. 3; Aquatic Chronic

Concentration

General advice

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

Molecular Weight

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

charge.

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Special protective equipment for fire-fighters

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Personal precautions

6. ACCIDENTAL RELEASE MEASURES

containers for disposal.

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed

7. HANDLING AND STORAGE

Conditions for safe storage Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air

standards such as NIOSH (US) or CEN (EU).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Hand protection The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the

Personal protective equipment

Respiratory protection

Handle with gloves.

the end of workday.

Melting point

Boiling point

Eye protection Face shield and safety glasses Skin and body protection Choose body protection according to the amount and concentration of the dangerous substance at the work place.

respirator. Use respirators and components tested and approved under appropriate government

9. PHYSICAL AND CHEMICAL PROPERTIES **Appearance** Form clear, liquid

Flash point 73 °C - closed cup no data available Ignition temperature

log Pow: 4,1 at 25 °C **Conditions to avoid** no data available Materials to avoid

Strong oxidizing agents Strong oxidizing agents

Hazardous decomposition products

11. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 4.150 - 4.664 mg/kg

LD50 Dermal - rat - > 3.600 mg/kg

Acute toxicity

Eyes - rabbit -

Germ cell mutagenicity

no data available

Carcinogenicity

Aspiration hazard no data available

Inhalation

Ingestion

Skin

Eyes

Potential health effects

Reproductive toxicity no data available Specific target organ toxicity - single exposure no data available Specific target organ toxicity - repeated exposure

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

Additional Information RTECS: no data available

Toxicity to fish

Toxicity to daphnia

Persistence and degradability

Bioaccumulative potential

Biodegradability

no data available

Mobility in soil

Product

IMDG

and other aquatic invertebrates. Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 140 mg/l - 96 h

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Contaminated packaging Dispose of as unused product.

13. DISPOSAL CONSIDERATIONS

Marine pollutant: Marine pollutant **IATA**

UN-Number: 2518 Class: 6.1

15. REGULATORY INFORMATION

Acute Tox. Acute toxicity Aquatic Chronic Chronic aquatic toxicity

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N Xn

R20

environment.

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. Lookchem 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.

EMS-No: F-A, S-A

R-phrase(s)

R20 Harmful by inhalation.

R51/53aquatic environment.

162,27 g/mol

Toxic to aquatic organisms, may cause long-term adverse effects in the S-phrase(s) S61

Other hazards - none 3. COMPOSITION/INFORMATION ON INGREDIENTS C12H18 Formula

CAS-No. EC-No. (1E,5E,9Z)-Cyclodode ca-1,5,9-triene

706-31-0 211-893-3

For the full text of the H-Statements mentioned in this Section, see Section 16. 4. FIRST AID MEASURES Consult a physician. Show this safety data sheet to the doctor in attendance.

In case of eye contact

If swallowed

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Wear self contained breathing apparatus for fire fighting if necessary.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Precautions for safe handling Avoid inhalation of vapour or mist.

standard EN 374 derived from it.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at

Colour light yellow Safety data no data available рΗ

Lower explosion limit no data available Upper explosion limit no data available 0,89 g/cm3 at 25 °C Density Water solubility no data available Partition coefficient: n-octanol/water 10. STABILITY AND REACTIVITY Chemical stability Stable under recommended storage conditions.

Hazardous decomposition products formed under fire conditions. - Carbon oxides

-18 °C - lit.

231 °C - lit.

Skin corrosion/irritation Skin - rabbit -Serious eye damage/eye irritation

Respiratory or skin sensitization

no data available

12. ECOLOGICAL INFORMATION **Toxicity**

May be harmful if swallowed.

May cause eye irritation.

Harmful if inhaled. May cause respiratory tract irritation.

May be harmful if absorbed through skin. May cause skin irritation.

LC50 - Oncorhynchus mykiss (rainbow trout) - 5,5 mg/l - 96,0 h

EC50 - Daphnia magna (Water flea) - 5 mg/l - 48 h

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.

no data available PBT and vPvB assessment no data available Other adverse effects

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional

Packing group: III

Packing group: III

Packing group: III

14. TRANSPORT INFORMATION ADR/RID UN-Number: 2518 Class: 6.1 Proper shipping name: 1,5,9-CYCLODODECATRIENE

Proper shipping name: 1,5,9-CYCLODODECATRIENE

waste disposal service to dispose of this material.

UN-Number: 2518 Class: 6.1 Proper shipping name: 1,5,9-Cyclododecatriene

> Dangerous for the environment Harmful Harmful by inhalation. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. 16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3 H331 Toxic if inhaled. Toxic to aquatic life with long lasting effects. H411

Further information For R&D use only. Not for drug, household or other uses. WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall be