

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

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Version : 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Safety Data Sheet : 34063
Product name: : NOOTKATONE 98%

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Fragrance ▪ Flavouring agents
Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : ISOBIONICS B.V.
 Urmonderbaan 22
 Building: 45.01.005
 6167 RD Geleen
 Netherlands

Telephone : +31 (0)433 020212

Responsible for the compilation of the SDS on behalf of the supplier/ manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

none

Remarks on labelling : none.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixture

| Substance name | CAS No. | EC No. | REACH No. | Concentration | Classification according to Regulation (EC) No 1272/2008 [CLP] |
|----------------|-----------|-----------|-----------|---------------|--|
| NOOTKATONE | 4674-50-4 | 225-124-4 | | 98.0 | |

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

| | | |
|---|---|---|
| General information | : | Remove casualty to fresh air and keep warm and at rest. Remove victim out of the danger area. When in doubt or if symptoms are observed, get medical advice. Do not leave affected person unattended. Remove affected person from the danger area and lay down. |
| Following inhalation | : | In case of respiratory tract irritation, consult a physician. |
| Following skin contact | : | After contact with skin, wash immediately with plenty of water and soap. |
| After eye contact | : | After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. |
| After ingestion | : | Rinse mouth thoroughly with water. Give nothing to eat or drink. Call a physician in any case! |
| Self-protection of the first aider | : | No special measures are necessary. |

4.2. Most important symptoms and effects, both acute and delayed

| | | | |
|-------------------------------|-----------------|---|---|
| Following skin contact | local | : | The substance is prickling: redness. |
| | systemic | : | Probably no absorption worth mentioning. |
| After ingestion | local | : | The substance is prickling: sore throat. |
| | systemic | : | The substance may be absorbed after ingestion. |
| Following inhalation | local | : | The substance is with atomising prickling: sore throat. |
| | systemic | : | Probably no absorption worth mentioning. |
| After eye contact | local | : | The substance is prickling: redness. |
| Other information | | : | None |

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water. • Extinguishing powder. • Water spray jet.

Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated : Carbon monoxide

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing. (EN 469)

5.4. Additional information

Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment.

6.1.1. For non-emergency personnel

Protective equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Emergency procedures : not applicable.

6.1.2. For emergency responders

Personal protection equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. 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.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Suitable material for taking up: Sand. Kieselguhr. Universal binder. Earth.

6.3.2. For cleaning up

Take up mechanically, placing in appropriate containers for disposal. Never return spills in original containers for re-use. Clean contaminated articles and floor according to the environmental legislation.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

| | |
|--|--|
| Advices on safe handling | : Avoid: electrostatic discharge. Provide earthing of containers, equipment, pumps and ventilation facilities. |
| Measures to prevent fire | : No information available. |
| Measures to prevent aerosol and dust generation | : No information available. |
| Environmental precautions | : Avoid release to the environment. |
| Advices on general occupational hygiene | : When using do not eat, drink, smoke, sniff. Take off contaminated clothing. Wash hands before breaks and after work. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|---|---|
| Technical measures and storage conditions | : Protect from sunlight. • Keep away from: ignition sources or heat sources. • Keep cool. • dry. • Store in a closed container. • Store in a well-ventilated place. • Handle under inert gas. |
| storage temperature | : Recommended storage temperature $\geq 2 - \leq 8$ °C |
| Requirements for storage rooms and vessels | : No information available. |
| Storage class | : No information available. |
| Materials to avoid | : No information available. |
| Further information on storage conditions | : No information available. |

7.3. Specific end use(s)

| | |
|---|-----------------------------|
| Recommendation | : not applicable |
| Industrial sector specific solutions | : No information available. |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

Does not contain substances above concentration limits fixing an occupational exposure limit.

Source : TRGS 910, Austrian OEL Regulation, SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, Dutch Social-Economic Council (SER), US OSHA, LOLI DB, 2000/39/EC, EU OSHA, GWBB/VLEP, TRGS 900, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), ACGIH®, 2009/161/EU, TRGS 905

20 °C, 1013 mbar: European Union / China / South Korea

25 °C, 1013 mbar: United States / Canada / Japan

[X]: appraisal period x minutes

C: peak limitation

H: skin resorptive

S: Statutory threshold limit value

ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

Avoid breathing dust. It is recommended to follow the TWA-value for inhalable dust (10 mg/m³) and respirable dust (5 mg/m³), if no community occupational exposure limits have been established.

DNEL (Derived No Effect Level (DNEL-value))

No information available.

PNEC (Predicted No Effect Concentration (PNEC-value))

No information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7

8.2.2. Personal protection equipment

| | |
|------------------------|---|
| Eye/face protection | : Eye glasses with side protection. |
| Skin protection | |
| Hand protection | : Suitable gloves type: Butyl caoutchouc (butyl rubber). |
| Body protection | : Suitable protective clothing: antistatic. Boots (antistatic). |
| Respiratory protection | : Filtering Half-face mask (DIN EN 149): FFP2. |

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

8.3. Additional information

No further relevant information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---|
| Physical state | : solid |
| Appearance | : crystalline |
| Colour | : white ▪ yellow ▪ green |
| Odour | : fruity/earthy |
| Odour threshold | : No information available. |
| pH | : not applicable |
| Melting point/freezing point | : ≥ 32 °C - ≤ 39 °C |
| Initial boiling point and boiling range | : 125 °C |
| Flash point | : ≥ 93 °C - ≤ 110 °C |
| Evaporation rate | : No information available. |
| flammability | : No information available. |
| Upper/lower flammability or explosive limits | |
| Upper explosion limit | : No information available. |
| Lower explosion limit | : No information available. |
| Vapour pressure | : not applicable |
| Vapour density | : No information available. |
| Relative density | : ≥ 0.970 - ≤ 1.050 (water=1) (20 °C) |
| Solubility(ies) | |
| Water | : practically insoluble |
| Partition coefficient: n-octanol/water | |
| NOOTKATONE | : 4.88 ▪ Source: EaSI-Pro ® View |
| Auto-ignition temperature | : No information available. |
| Decomposition temperature | : No information available. |
| Viscosity | : not applicable |
| Explosive properties: | : not applicable |
| Oxidising properties | : not applicable |

9.2. Other information

| | |
|-------------------------|-----------------------------|
| Critical temperature Tc | : not applicable |
| Fat solubility | : No information available. |

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions. Take action to prevent static discharges.

10.5. Incompatible materials

Oxidising substances ▪ Strong acid ▪ Strong bases

10.6. Hazardous decomposition products

No known hazardous decomposition products.

10.7. Additional information

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

After ingestion : No
Skin contact : No
Inhalation : No

| Substances | Dose / Concentration | Value | Species | Exposure time | Method |
|------------|----------------------|-----------|---------|---------------|--------|
| NOOTKATONE | | | | | |
| oral | LD50: | >5.0 g/kg | Rat | | |
| dermal | LD50: | >5.0 g/kg | Rabbit | | |

Skin corrosion/irritation : not applicable
Serious eye damage/eye irritation : not applicable
Respiratory or skin sensitisation : not applicable
Germ cell mutagenicity : not applicable
Carcinogenicity : not applicable
Reproductive toxicity : not applicable
STOT-single exposure : not applicable
STOT-repeated exposure : not applicable
Aspiration hazard : not applicable

Symptoms

Following skin contact **local** : The substance is prickling: redness.
 systemic : Probably no absorption worth mentioning.
After ingestion **local** : The substance is prickling: sore throat.
 systemic : The substance may be absorbed after ingestion.
Following inhalation **local** : The substance is with atomising prickling: sore throat.
 systemic : Probably no absorption worth mentioning.
After eye contact **local** : The substance is prickling: redness.
Other information : None

SECTION 12: Ecological information

12.1. Toxicity

No information available.

12.2. Persistence and degradability

Biodegradation
NOOTKATONE : Not readily biodegradable (according to OECD criteria) ▪ Source: Supplier
Chemical oxygen demand (COD) : No information available.
Biochemical oxygen demand : No information available.
BOD5/COD ratio : No information available.

12.3. Bioaccumulative potential

Bioconcentration factor (BCF)
NOOTKATONE : 428 ▪ Source: Supplier
Partition coefficient: n-octanol/water
NOOTKATONE : 4.88 ▪ Source: EaSI-Pro ® View

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

12.7. Additional ecotoxicological information

Observe local regulations concerning effluent treatment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/container to industrial incineration plant. Following consultation with waste management company and after physico-chemical pre-treatment, landfill together with household waste.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]
not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

none

Relevant H-phrases (Number and full text)

not applicable

Abbreviations and acronyms

| | |
|-----------|---|
| ACGIH® | American Conference of Governmental Industrial Hygienists |
| ADR | Accord européen relatif au transport international des marchandises Dangereuses par Route |
| AICS | Australian Inventory of Chemical Substances |
| BuAc | n-Butyl acetate |
| CAS | Chemical Abstracts Service |
| CCID | New Zealand Chemical Classification and Information Database |
| DSL | Canada Domestic Substances List |
| ECHA-RAC | ECHA Committee for Risk Assessment |
| EFSA | European Food Safety Authority |
| EHSP | OECD Environment, Health, and Safety Publication |
| EmS | Emergency Schedule |
| EU-CLH | European Union Harmonised Classification and Labelling |
| GESTIS | Databases on hazardous substances of the German Social Accident Insurance |
| GHS | Globally Harmonised System of Classification and Labelling of Chemicals |
| GWBB-VLEP | Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle |
| HHS | U.S. Department of Health and Human Services |
| HSDB | Hazardous Substances Data Bank |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| INRS | French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases |
| JP-GHS | Japan GHS Basis for Classification Data |
| KHC | Known human carcinogens. |
| LEL | Lower explosion limit |
| LOLI | LOLI (List of Lists) Database |
| n.a. | not applicable |
| NDSL | Canada Non-domestic Substance List |
| NICNAS | Australia National Industrial Chemicals Notification and Assessment Scheme |
| NIER | South Korea National Institute of Environmental Research Evaluations |
| NLM | United States National Library of Medicine |
| NTP | National Toxicology Program |
| NZIoC | New Zealand Inventory of Chemicals |
| OECD | Organisation for Economic Co-operation and Development |
| OSHA | Occupational Safety & Health Administration |
| OUE | European Odour Unit |
| RAHC | Reasonably Anticipated Human Carcinogen |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SCOEL | Scientific Committee on Occupational Exposure Limits (EU) |
| SIDS | OECD Screening Information Data Sets |
| SUVA | Swiss Accident Insurance Fund |
| TRGS | Technische Regeln für Gefahrstoffe |
| TSCA | The Toxic Substances Control Act Chemical Substance Inventory |
| TWA | Time Weighted Average |
| UEL | Upper explosion limit |
| UN | United Nations |
| US-EPA | United States Environmental Protection Agency |

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