

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

1.1 Product identifier

Super-Start Plus – Starting aid spray
Article number: 2897330310
UFI: 31V1-PQ08-5100-K80W

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

1.2.1 Relevant uses

Starting aid spray

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Normfest GmbH
Siemensstraße 23
42551 Velbert / GERMANY
Phone +49 2051 275-0
Fax +49 2051 275-141
Homepage www.normfest.com
E-mail info@normfest.de

Address enquiries to

Technical information info@normfest.de

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number




Advisory body 145 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
Eye Irrit. 2: H319 Causes serious eye irritation.
STOT SE 3: H336 May cause drowsiness or dizziness.
Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.
Skin Irrit. 2: H315 Causes skin irritation.
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways.

2.2 Label elements

| | | |
|---------------------------------|---|--|
| | The product is required to be labelled in accordance with regulation CLP. | |
| Hazard pictograms |    | |
| Signal word | DANGER | |
| Contains: | Diethyl ether Acetone Pentane Hydrocarbons, C6, isoalkanes, <5% n-hexane Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane | |
| Hazard statements | H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects. H336 May cause drowsiness or dizziness. H315 Causes skin irritation. | |
| Precautionary statements | P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122°F. P260 Do not breathe vapours / spray. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves / eye protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice / attention. P312 Call a POISON CENTER / doctor if you feel unwell. P405 Store locked up. P501 Dispose of contents/container in accordance with local/national regulation. | |

2.3 Other hazards

| | |
|------------------------------|---|
| Environmental hazards | Does not contain any PBT or vPvB substances. Contains no ingredients with endocrine-disrupting properties. |
| Other hazards | Further hazards were not determined with the current level of knowledge. |

SECTION 3: Composition / Information on ingredients

3.1 Substances not applicable

3.2 Mixtures

The product is a mixture.

| Range [%] | Substance |
|-----------|---|
| 25 - <50 | Butane |
| | CAS: 106-97-8 |
| | GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280 |
| 15 - <20 | Diethyl ether |
| | CAS: 60-29-7 |
| | GHS/CLP: Flam. Liq. 1: H224 - Acute Tox. 4: H302 - STOT SE 3: H336 - EUH019 - EUH066 |
| 10 - <15 | Propane |
| | CAS: 74-98-6 |
| | GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280 |
| 10 - >15 | Acetone |
| | CAS: 67-64-1 |
| | GHS/CLP: Flam. Liq. 2: H225 - Eye Irrit. 2: H319 - STOT SE 3: H336 - EUH066 |
| 10 - >15 | Pentane |
| | CAS: 109-66-0 |
| | GHS/CLP: Flam. Liq. 2: H225 - Asp. Tox. 1: H304 - STOT SE 3: H336 - Aquatic Chronic 2: H411 |
| 5 - <10 | Hydrocarbons, C6, isoalkanes, <5% n-hexane |
| | CAS: 64742-49-0 |
| | GHS/CLP: Flam. Liq. 2: H225 - Skin Irrit. 2: H315 - Asp. Tox. 1: H304 - STOT SE 3: H336 - Aquatic Chronic 2: H411 |
| 1 - <5 | Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| | GHS/CLP: Flam. Liq. 2: H225 - Aquatic Chronic 2: H411 - Asp. Tox. 1: H304 - STOT SE 3: H336 - - EUH066 |
| 2,5 - <5 | Cyclohexane |
| | CAS: 110-82-7 |
| | GHS/CLP: Flam. Liq. 2: H225 - Asp. Tox. 1: H304 - Skin Irrit. 2: H315 - STOT SE 3: H336 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M-Factor (acute): 1, M-Factor (chronic): 1 |
| | M-Factor (acute): 1, M-Factor (chronic): 1 |
| 1 - <5 | iso-Butane |
| | CAS: 75-28-5 |
| | GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280 |
| 0,1 - <1 | n-Hexane |
| | CAS: 110-54-3 |
| | GHS/CLP: Flam. Liq. 2: H225 - Repr. 2: H361f - Asp. Tox. 1: H304 - STOT RE 2: H373 - Skin Irrit. 2: H315 - STOT SE 3: H336 - Aquatic Chronic 2: H411 |
| | SCL [%]: >= 5: STOT RE 2: H373 |

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
 For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Change soaked clothing.

Inhalation

Ensure supply of fresh air.
 In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
 Consult a doctor if skin irritation persists.

Eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

Ingestion

Consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects
 Drowsiness
 Vertigo

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Carbon dioxide.
Water spray jet.
Dry powder.
Foam.

Extinguishing media that must not
be used Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Not combusted hydrocarbons.
Carbon monoxide (CO).
Bursting aerosols can be forcibly projected from a fire.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).
High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up residues with absorbent material (e.g. sand).
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Use solvent-resistant equipment.
Keep away from all sources of ignition - Refrain from smoking.
Vapours can form an explosive mixture with air.
Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.

Do not store together with oxidizing agents.

Protect from heat/overheating and from sun.

Keep in a cool place, heat causes increase in pressure and risk of bursting.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

| |
|---|
| Substance |
| Pentane |
| CAS: 109-66-0 |
| Long-term exposure: 600 ppm, 1800 mg/m ³ |
| Butane |
| CAS: 106-97-8 |
| Long-term exposure: 600 ppm, 1450 mg/m ³ |
| Short-term exposure (15-minute): 750 ppm, 1810 mg/m ³ |
| Cyclohexane |
| CAS: 110-82-7 |
| Long-term exposure: 100 ppm, 350 mg/m ³ |
| Short-term exposure (15-minute): 300 ppm, 1050 mg/m ³ |
| Diethyl ether |
| CAS: 60-29-7 |
| Long-term exposure: 100 ppm, 310 mg/m ³ |
| Short-term exposure (15-minute): 200 ppm, 620 mg/m ³ |
| Acetone |
| CAS: 67-64-1 |
| Long-term exposure: 500 ppm, 1210 mg/m ³ |
| Short-term exposure (15-minute): 1500 ppm, 3620 mg/m ³ |
| iso-Butane |
| CAS: 75-28-5 |
| Long-term exposure: 600 ppm, 1450 mg/m ³ , (Butane) |
| Short-term exposure (15-minute): 750 ppm, 1810 mg/m ³ |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| Long-term exposure: 1200 mg/m ³ |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane |
| CAS: 64742-49-0 |
| Long-term exposure: 1200 mg/m ³ |
| n-Hexane |
| CAS: 110-54-3 |
| Long-term exposure: 20 ppm, 72 mg/m ³ |

DNEL

| |
|--|
| Substance |
| Butane, CAS: 106-97-8 |
| There are no DNEL values established for the substance. |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane, CAS: 64742-49-0 |
| Industrial, dermal, Long-term - systemic effects, 13964 mg/kg bw/day |
| Industrial, inhalative, Long-term - systemic effects, 5306 mg/m ³ |
| general population, inhalative, Long-term - systemic effects, 1131 mg/m ³ |
| general population, dermal, Long-term - systemic effects, 1377 mg/kg bw/day |
| general population, oral, Long-term - systemic effects, 1301 mg/kg bw/day |

| |
|--|
| Acetone, CAS: 67-64-1 |
| Industrial, inhalative, Long-term - systemic effects, 1210 mg/m ³ |
| Industrial, dermal, Long-term - systemic effects, 186 mg/kg bw/d |
| Industrial, inhalative, Long-term - local effects, 2420 mg/m ³ |
| general population, dermal, Long-term - systemic effects, 62 mg/kg bw/d |
| general population, oral, Long-term - systemic effects, 62 mg/kg bw/d |
| general population, inhalative, Long-term - systemic effects, 200 mg/m ³ |
| Propane, CAS: 74-98-6 |
| There are no DNEL values established for the substance. |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| Industrial, dermal, Long-term - systemic effects, 13964 mg/kg bw/day |
| Industrial, inhalative, Long-term - systemic effects, 5306 mg/m ³ |
| general population, oral, Long-term - systemic effects, 1301 mg/kg bw/day |
| general population, dermal, Long-term - systemic effects, 1377 mg/kg bw/day |
| general population, inhalative, Long-term - systemic effects, 1131 mg/m ³ |
| Diethyl ether, CAS: 60-29-7 |
| Industrial, inhalative, Long-term - systemic effects, 308 mg/m ³ |
| Industrial, inhalative, Acute - systemic effects, 616 mg/m ³ |
| Industrial, dermal, Long-term - systemic effects, 44 mg/kg bw/day |
| general population, dermal, Long-term - systemic effects, 15,6 mg/kg bw/day |
| general population, oral, Long-term - systemic effects, 15,6 mg/kg bw/day |
| general population, inhalative, Long-term - systemic effects, 54,5 mg/m ³ |
| iso-Butane, CAS: 75-28-5 |
| There are no DNEL values established for the substance. |
| Pentane, CAS: 109-66-0 |
| Industrial, dermal, Long-term - systemic effects, 432 mg/kg bw/day |
| Industrial, inhalative, Long-term - systemic effects, 3000 mg/m ³ |
| general population, oral, Long-term - systemic effects, 214 mg/kg bw/day |
| general population, inhalative, Long-term - systemic effects, 643 mg/m ³ |
| general population, dermal, Long-term - systemic effects, 214 mg/kg bw/day |

PNEC

| |
|---|
| Substance |
| Butane, CAS: 106-97-8 |
| There are no PNEC values established for the substance. |
| Acetone, CAS: 67-64-1 |
| seawater, 1,06 mg/L |
| sediment (freshwater), 30,4 mg/kg sediment dw |
| sediment (seawater), 3,04 mg/kg sediment dw |
| soil, 29,5 mg/kg soil dw |
| sewage treatment plants (STP), 100 mg/L |
| freshwater, 10,6 mg/L |
| Propane, CAS: 74-98-6 |
| There are no PNEC values established for the substance. |
| Diethyl ether, CAS: 60-29-7 |
| soil, 0,66 mg/kg soil dw |
| freshwater, 2 mg/L |
| seawater, 0,2 mg/L |
| sewage treatment plants (STP), 4,2 mg/L |

| |
|---|
| sediment (seawater), 0,914 mg/kg |
| sediment (freshwater), 9,14 mg/kg |
| iso-Butane, CAS: 75-28-5 |
| There are no PNEC values established for the substance. |
| Pentane, CAS: 109-66-0 |
| freshwater, 230 µg/L |
| seawater, 230 µg/L |
| sewage treatment plants (STP), 3.6 mg/L |
| sediment (freshwater), 1.2 mg/kg sediment dw |
| sediment (seawater), 1.2 mg/kg sediment dw |
| soil, 550 µg/kg soil dw |

8.2 Exposure controls

| | |
|--|---|
| Additional advice on system design | Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances. |
| Eye protection | Safety glasses. (EN 166:2001) |
| Hand protection | 0,7 mm Butyl rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information. |
| Skin protection | Solvent-resistant protective clothing (EN 340) |
| Other | Do not inhale gases/vapours/aerosols. Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. |
| Respiratory protection | In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387) |
| Thermal hazards | not applicable |
| Delimitation and monitoring of the environmental exposition | See SECTION 6+7. |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|---------------------------|
| Physical state | aerosol |
| Color | yellowish |
| Odor | characteristic |
| Odour threshold | not applicable |
| pH-value | not applicable |
| pH-value [1%] | not applicable |
| Boiling point [°C] | not applicable |
| Flash point [°C] | not applicable |
| Flammability (solid, gas) [°C] | not applicable |
| Lower explosion limit | not determined |
| Upper explosion limit | not determined |
| Oxidising properties | no |
| Vapour pressure/gas pressure [kPa] | 420 |
| Density [g/cm ³] | 0,70 - 0,74 (20°C) |
| Relative density | not determined |
| Bulk density [kg/m ³] | not applicable |
| Solubility in water | not applicable |
| Solubility other solvents | No information available. |
| Partition coefficient [n-octanol/water] | not determined |
| Kinematic viscosity | not applicable |
| Relative vapour density | not applicable |
| Evaporation speed | not applicable |
| Melting point [°C] | not applicable |
| Auto-ignition temperature | not determined |
| Decomposition temperature [°C] | not applicable |
| Particle characteristics | No information available. |

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Risk of bursting.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong oxidizing agent.

10.6 Hazardous decomposition products

Flammable gases/vapours.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity not determined

| |
|---|
| Product |
| ATE-mix, oral, >2000 mg/kg bw |
| Substance |
| Cyclohexane, CAS: 110-82-7 |
| LD50, oral, Rat, > 5000 mg/kg (IUCLID) |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane, CAS: 64742-49-0 |
| LD50, oral, Rat, 25 mL/kg bw |
| n-Hexane, CAS: 110-54-3 |
| LD50, oral, Rat, 25000 mg/kg bw (GESTIS) |
| Acetone, CAS: 67-64-1 |
| LD50, oral, Rat, 5800 mg/kg bw, OECD 401 |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| LD50, oral, Rat, >5000 mg/kg bw |
| Diethyl ether, CAS: 60-29-7 |
| LD50, oral, Rat, 1215 mg/kg bw |
| Pentane, CAS: 109-66-0 |
| LD50, oral, Rat, >2000 mg/kg bw |

Acute dermal toxicity not determined

| |
|---|
| Product |
| ATE-mix, dermal, >2000 mg/kg bw |
| Substance |
| Cyclohexane, CAS: 110-82-7 |
| LD50, dermal, Rabbit, > 2000 mg/kg (IUCLID) |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane, CAS: 64742-49-0 |
| LD50, dermal, Rabbit, 5 mL/kg bw |
| n-Hexane, CAS: 110-54-3 |
| LD50, dermal, Rabbit, 3000 mg/kg bw (IUCLID) |
| Acetone, CAS: 67-64-1 |
| LD50, dermal, Rabbit, >15800 mg/kg bw |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| LD50, dermal, Rabbit, >2000 mg/kg bw |

Acute inhalational toxicity not determined

| |
|---|
| Product |
| ATE-mix, inhalative, >5 mg/L (Aerosol) |
| Substance |
| Butane, CAS: 106-97-8 |
| LC50, inhalative, Rat, 658 mg/L (IUCLID) |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane, CAS: 64742-49-0 |
| LC50, inhalative, Rat, 73860 ppm (4 h) |

| |
|---|
| n-Hexane, CAS: 110-54-3 |
| LC50, inhalative, Rat, 169 mg/L (4h) (GESTIS) |
| Acetone, CAS: 67-64-1 |
| LC50, inhalative, Rat, 76 mg/L, 4h |
| Propane, CAS: 74-98-6 |
| LC50, inhalative, Rat, > 1443 mg/l (15 min) (Lit.) |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| LC50, inhalative, Rat, >12 ppm (4h) |
| Diethyl ether, CAS: 60-29-7 |
| LC50, inhalative, Rat, 73000 mg/L (4h) |
| iso-Butane, CAS: 75-28-5 |
| LC50, inhalative, mouse, 1237 mg/L |
| Pentane, CAS: 109-66-0 |
| LC50, inhalative, Rat, 25.3 mg/L, 4h |

Serious eye damage/irritation

Irritant

| |
|---|
| Substance |
| Butane, CAS: 106-97-8 |
| Eye, non-irritating |
| Propane, CAS: 74-98-6 |
| Eye, non-irritating |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| Eye, Rabbit, non-irritating |
| iso-Butane, CAS: 75-28-5 |
| Eye, non-irritating |

Skin corrosion/irritation

Irritant

| |
|---|
| Substance |
| Butane, CAS: 106-97-8 |
| dermal, non-irritating |
| Propane, CAS: 74-98-6 |
| dermal, non-irritating |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| dermal, Rabbit, non-irritating |
| iso-Butane, CAS: 75-28-5 |
| dermal, non-irritating |

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

| |
|---|
| Substance |
| Butane, CAS: 106-97-8 |
| inhalative, non-sensitizing |
| dermal, non-sensitizing |
| Propane, CAS: 74-98-6 |
| inhalative, non-sensitizing |
| dermal, non-sensitizing |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| No information available., negativ |
| iso-Butane, CAS: 75-28-5 |

inhalative, non-sensitizing

dermal, non-sensitizing

Specific target organ toxicity — single exposure — Vapours may cause drowsiness and dizziness.

Substance

Butane, CAS: 106-97-8

inhalative, non-irritating

Propane, CAS: 74-98-6

inhalative, non-irritating

Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane

positive

iso-Butane, CAS: 75-28-5

inhalative, non-irritating

Specific target organ toxicity — repeated exposure — Based on available data, the classification criteria are not met.

Substance

Propane, CAS: 74-98-6

NOAEC, inhalative, Rat, 4437 mg/m³

Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane

LOAEC, inhalative, Rat, 10 504 mg/m³, negativ

Mutagenicity — Does not contain a relevant substance that meets the classification criteria.

Substance

Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane

OECD 471, negativ

Reproduction toxicity — Does not contain a relevant substance that meets the classification criteria.

Substance

Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane

NOAEC, inhalative, Rat, 31680 mg/m³, negativ

Carcinogenicity — Does not contain a relevant substance that meets the classification criteria.

Substance

Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane

NOAEC, inhalative, Rat, 31680 mg/m³, negativ

Aspiration hazard — May be fatal if swallowed and enters airways.

General remarks

Toxicological data of complete product are not available.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 12: Ecological information

12.1 Toxicity

| |
|---|
| Substance |
| Cyclohexane, CAS: 110-82-7 |
| LC50, (96h), fish, 93,0 - 117 mg/l (IUCLID) |
| EC50, (48h), Daphnia magna, 3,78 mg/l (IUCLID) |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane, CAS: 64742-49-0 |
| EL50, (72h), Algae, 13,56 mg/L |
| EL50, (48h), Crustacea, 7,138 mg/L |
| NOELR, (96h), fish, 4,089 mg/L |
| LL50, (96h), fish, 18,27 mg/L |
| n-Hexane, CAS: 110-54-3 |
| LC50, (96h), Pimephales promelas, 2,5 mg/L (GESTIS) |
| Acetone, CAS: 67-64-1 |
| LC50, (48h), Daphnia pulex, 8800 mg/l |
| LC50, (96h), Oncorhynchus mykiss, 5540 mg/l |
| NOEC, (96h), Algae, 430 mg/l |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane |
| EL50, (48h), Daphnia magna, 17,06 mg/L |
| Diethyl ether, CAS: 60-29-7 |
| LC50, (48h), Leuciscus idus, 2840 mg/L |
| EC50, (48h), Daphnia magna, 1380 mg/l (IUCLID) |
| Pentane, CAS: 109-66-0 |
| EL50, (48h), Invertebrates, 48.11 mg/L |
| EL50, (72h), Algae, 20.33 mg/L |
| LL50, (96h), fish, 27.55 mg/L |

12.2 Persistence and degradability

| | |
|---------------------------------------|----------------|
| Behaviour in environment compartments | not determined |
| Behaviour in sewage plant | not determined |
| Biological degradability | not determined |

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

12.7 Other adverse effects

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.
Ecological data of complete product are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with national regulations.

Product

Dispose of as hazardous waste.

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID 1950

Inland navigation (ADN) 1950

Marine transport in accordance with IMDG 1950

Air transport in accordance with IATA 1950

14.2 UN proper shipping name

Transport by land according to ADR/RID Aerosols

- Classification Code 5F

- Label



- ADR LQ 1 I

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 2 (D)

Inland navigation (ADN) Aerosols

- Classification Code 5F

- Label



Marine transport in accordance with IMDG Aerosols (Cyclohexane, Pentane)

- EMS F-D, S-U

- Label



- IMDG LQ 1 I

Air transport in accordance with IATA Aerosols, flammable

- Label



14.3 Transport hazard class(es)

Transport by land according to ADR/RID 2

Inland navigation (ADN) 2

Marine transport in accordance with IMDG 2.1

Air transport in accordance with IATA 2.1

14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID yes

Inland navigation (ADN) yes

Marine transport in accordance with IMDG MARINE POLLUTANT

Air transport in accordance with IATA yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not determined

SECTION 15: Regulatory information

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

TRANSPORT-REGULATIONS ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2021)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.

- **Observe employment restrictions for people** Observe employment restrictions for young people.
Observe employment restrictions for mothers-to-be and nursing mothers.

- **VOC (2010/75/CE)** 75 %

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV@/TWA = Threshold limit value – time-weighted average
TLV@STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.2 Other information

Classification procedure

Aerosol 1: H222 Extremely flammable aerosol. (Bridging principle "Aerosols") H229
Pressurised container: May burst if heated. (Bridging principle "Aerosols")
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)
STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method)
Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects. (Calculation method)
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways. (Bridging principle "Aerosols")

Modified position

SECTION 2 been added: Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane

SECTION 2 been added: Hydrocarbons, C6, isoalkanes, <5% n-hexane

SECTION 3 been added: Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane

SECTION 2 deleted: Hydrocarbons, C5-C7, n-alkanes, isoalkanes, <5% n-hexane

SECTION 3 deleted: Hydrocarbons, C5-C7, n-alkanes, isoalkanes, <5% n-hexane

SECTION 2 been added: The product is required to be labelled in accordance with regulation CLP.

SECTION 2 been added: Contains no ingredients with endocrine-disrupting properties.

SECTION 8 been added: In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.

SECTION 8 deleted: Respiratory protection mask in the event of high concentrations.

SECTION 11 been added: none

SECTION 11 been added: Does not contain a relevant substance that meets the classification criteria.

SECTION 12 been added: Does not contain a relevant substance that meets the classification criteria.

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