

SAFETY DATA SHEET

AESUB blue

SECTION 1: Identification

1.1. Product identifier

Trade name

AESUB blue

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

Relevant identified uses of the substance or mixture

Industrial purposes

Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Scanningspray Vertriebs GmbH

Johann-Strauss-Str. 13

45657 Recklinghausen

Germany

+49 (0)2361 8903 357

info@aesub.com

Contact person

Max Liese

E-mail

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SDS date

1/15/2024

SDS Version

1.0

1.4. Emergency telephone number

US Chemtrec: +1 800 424-9300 (24h)

CHEMTREC: +1 703 527-3887 (24h) Transport

(CCN 994267 / WISAG FMO Cargo Service GmbH &

Co. KG);

SECTION 2: Hazard(s) identification

OSHA/HCS status

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

2.1. Classification of the substance or mixture

Aerosol 1; H222, H229, Extremely flammable aerosol. Pressurised container: May burst if heated.

STOT SE 3; H336, May cause drowsiness or dizziness.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Extremely flammable aerosol. Pressurised container: May burst if heated. (H222, H229)

May cause drowsiness or dizziness. (H336)

Precautionary statement(s)

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

General

-

Prevention

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)
- Do not spray on an open flame or other ignition source. (P211)
- Do not pierce or burn, even after use. (P251)
- Avoid breathing spray. (P261)

Response

- Call a POISON CENTER/doctor if you feel unwell. (P312)

Storage

- Store in a well-ventilated place. Keep container tightly closed. (P403+P233)
- Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F. (P410+P412)

Disposal

- Dispose of contents/container in accordance with local regulation (P501)

Additional labelling

Not applicable.

2.3. Other hazards

Additional warnings

In the event of leaks, high concentrations of gases can quickly form. They can be toxic, asphyxiating, or explosive. This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
cyclopentane	CAS No.: 287-92-3	25-40%	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336	
propane	CAS No.: 74-98-6	25-40%	Flam. Gas 1A, H220 Press. Gas (Liq.) , H280	
ethanol;ethyl alcohol	CAS No.: 64-17-5	15-25%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 (SCL: 50.00 %)	
Tricyclo[3.3.1.1.3,7]decane	CAS No.: 281-23-2	5-10%		
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	CAS No.:	1-3%	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	CAS No.:	1-3%	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336	
Hydrocarbons, C6, isoalkanes, <5% n-hexane	CAS No.: 64742-49-0	1-3%	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336	[19]
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	CAS No.: 64742-49-0	1-3%	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336	[19]
n-hexane	CAS No.: 110-54-3	<0.25%	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315	

STOT SE 3, H336
Repr. 2, H361f (SCL: 0.20 %)
STOT RE 1, H372

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

SECTION 4: First-aid measures

4.1. Description of first aid measures

General information

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

Call a POISON CENTER/doctor if you feel unwell.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurised container. In a fire or if heated, a pressure increase will occur and the container may burst.

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO₂)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Accidental releases always pose a serious risk of fire or explosion.

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapours from spilled material.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Because of the danger of self-ignition, any waste from the product, spray mist and soiled rags etc. are to be kept in a fire-proof place in air-tight containers, alternatively the waste is to be burned.

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Pressurized gas packs (spray cans, aerosol cans) must be stored behind a wire mesh, which allows gases to escape and holds back packs flying around.

Recommended storage material

Keep only in original packaging.

Storage temperature

< 50°C

Incompatible materials

Strong oxidizing agents

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

propane

Long term exposure limit (OSHA Table Z-1) (mg/m³): 1800

Long term exposure limit (OSHA Table Z-1) (ppm): 1000

ethanol;ethyl alcohol

Short term exposure limit (STEL) (ACGIH TLV) (ppm): 1000

Long term exposure limit (OSHA Table Z-1) (mg/m³): 1900

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Long term exposure limit (OSHA Table Z-1) (ppm): 1000

n-hexane

Long term exposure limit (OSHA Table Z-1) (mg/m³): 1800

Long term exposure limit (OSHA Table Z-1) (ppm): 500

Long term exposure limit (ACGIH TLV) (ppm): 50

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally

Use only protective equipment with a recognized certification mark, e.g. the UL mark.

Respiratory Equipment

Type	Class	Colour	Standards
AX		Brown	EN14387



Skin protection

Recommended	Type/Category	Standards
Dedicated work clothing should be worn.	-	-



Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Butyl	0,7	> 240	EN374-2, EN374-3, EN388, EN421



Eye protection

Type	Standards
Face shield alternatively safety glasses with side shields.	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Aerosol

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Colour

Colourless

Odour

Characteristic

Odour threshold (ppm)

Testing not relevant or not possible due to the nature of the product.

pH

Testing not relevant or not possible due to the nature of the product.

Density (g/cm³)

Testing not relevant or not possible due to the nature of the product.

Kinematic viscosity

Testing not relevant or not possible due to the nature of the product.

Phase changes

Melting point (°F)

Testing not relevant or not possible due to the nature of the product.

Softening point/range (waxes and pastes) (°F)

Does not apply to aerosols.

Boiling point (°F)

Testing not relevant or not possible due to the nature of the product.

Vapour pressure

Testing not relevant or not possible due to the nature of the product.

Relative vapour density

Testing not relevant or not possible due to the nature of the product.

Decomposition temperature (°F)

Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

Flash point (°F)

Does not apply to aerosols.

Flash point (°C)

-87.0 @ 1.013 hPa

Flammability (°F)

The material is ignitable.

Flammability (°C)

264

Auto-ignition temperature (°F)

Testing not relevant or not possible due to the nature of the product.

Explosion limits (% v/v)

0.6 - 15

Solubility

Solubility in water

Testing not relevant or not possible due to the nature of the product.

n-octanol/water coefficient (LogKow)

Testing not relevant or not possible due to the nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

VOC (g/L)

600

Other physical and chemical parameters

No data available.

Oxidizing properties

Testing not relevant or not possible due to the nature of the product.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid static electricity.

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Product/substance	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
Test method:	OECD 401
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	> 5000 mg/kg

Product/substance	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
Test method:	OECD 403
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	> 20 mg/L

Product/substance	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
Test method:	OECD 402
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	> 2000 mg/kg

Product/substance	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
Test method:	OECD 401
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>5000 mg/kg

Product/substance	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
Test method:	OECD 403
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	>20 mg/L

Product/substance	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
Test method:	OECD 402
Species:	Rat
Route of exposure:	Dermal
Test:	LD50
Result:	>2000 mg/kg

Product/substance	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Test method:	OECD 401
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	5000 mg/kg

Product/substance	Hydrocarbons, C6, isoalkanes, <5% n-hexane
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Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Test method:	OECD 403
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50 (4 hours)
Result:	20 mg/L
Product/substance	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Test method:	OECD 402
Species:	Rat
Route of exposure:	Dermal
Test:	LC50
Result:	3000 mg/kg
Product/substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Test method:	OECD 401
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	5840 mg/kg
Product/substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Test method:	OECD 403
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	23,3 mg/L
Product/substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Test method:	OECD 402
Species:	Rat
Route of exposure:	Dermal
Test:	LD50
Result:	2920 mg/kg

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

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

Aspiration hazard

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

Long term effects

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance: cyclopentane
Species: Fish
Duration: 96 hours
Test: LL50
Result: 29.3 mg/L

Product/substance: propane
Species: Fish
Duration: 96 hours
Test: LC50
Result: 27,98 mg/L

Product/substance: propane
Species: Algae
Duration: 96 hours
Test: EC50
Result: 7,71 mg/L

Product/substance: Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
Species: Fish, *Oncorhynchus mykiss*
Duration: 96 hours
Test: LL50
Result: 12 mg/L

Product/substance: Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
Species: Fish, *Daphnia magna*
Duration: 48 hours
Test: EL50
Result: 3 mg/L

Product/substance: Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
Species: Algae, *Pseudokirchneriella subcapitata*
Duration: 72 hours
Test: ErL50
Result: 55 mg/L

Product/substance: Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
Species: Algae, *Pseudokirchneriella subcapitata*
Duration: 72 hours
Test: NOELR
Result: 30 mg/L

Product/substance: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
Test method: OECD 203
Species: Fish, *Oncorhynchus mykiss*
Duration: 96 hours
Test: LL50
Result: 11,4 mg/L

Product/substance: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
Test method: OECD 202
Species: Crustacean, *Daphnia magna*
Duration: 48 hours
Test: EL50
Result: 3 mg/L

Product/substance: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
Test method: OECD 201
Species: Algae, *Pseudokirchneriella subcapitata*
Duration: 72 hours

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Test:	EL50
Result:	30 mg/L
Product/substance	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Species:	Fish, <i>Oryzias latipes</i>
Duration:	48 hours
Test:	LC50
Result:	1 mg/L
Product/substance	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Species:	Crustacean, <i>Daphnia magna</i>
Duration:	48 hours
Test:	LC50
Result:	3,87 mg/L
Product/substance	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Species:	Algae, <i>Pseudokirchneriella subcapitata</i>
Duration:	72 hours
Test:	ErL50
Result:	55 mg/L
Product/substance	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Species:	Algae, <i>Pseudokirchneriella subcapitata</i>
Duration:	72 hours
Test:	NOELR
Result:	30 mg/L
Product/substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Species:	Fish, <i>Oncorhynchus mykiss</i>
Duration:	96 hours
Test:	LL50
Result:	13,4 mg/L
Product/substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Species:	Crustacean, <i>Daphnia magna</i>
Duration:	48 hours
Test:	EL50
Result:	3 mg/L
Product/substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Species:	Algae, <i>Pseudokirchneriella subcapitata</i>
Duration:	72 hours
Test:	NOELR
Result:	10 mg/L
Product/substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Species:	Algae, <i>Pseudokirchneriella subcapitata</i>
Duration:	72 hours
Test:	EL50
Result:	10-30 mg/L
Product/substance	n-hexane
Species:	Fish
Duration:	96 hours
Test:	LL50
Result:	12,51 mg/L
Product/substance	n-hexane
Species:	Crustacean
Duration:	48 hours
Test:	EL50
Result:	21,85 mg/L

12.2. Persistence and degradability

Product/substance cyclopentane

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Biodegradable: Result:	No 0% 28d
Product/substance Biodegradable: Result:	ethanol;ethyl alcohol Yes 69% 5d
Product/substance Biodegradable: Result:	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane Yes 98% (28d)
Product/substance Biodegradable: Result:	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane Yes 81% (28d)
Product/substance Biodegradable: Test method: Result:	Hydrocarbons, C6, isoalkanes, <5% n-hexane Yes OECD 301 F 98% (28 d)
Product/substance Biodegradable: Result:	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics Yes 98% (28d)

12.3. Bioaccumulative potential

Product/substance	cyclopentane
Potential bioaccumulation:	No data available.
LogKow:	3 (pH: 7, 25 °C)
BCF:	70,8

Product/substance	propane
Potential bioaccumulation:	No data available.
LogKow:	1,09 (pH: 7, 20 °C)
BCF:	No data available.

Product/substance	ethanol;ethyl alcohol
Potential bioaccumulation:	No
LogKow:	-0,77
BCF:	No data available.

Product/substance	Tricyclo[3.3.1.13,7]decane
Potential bioaccumulation:	No data available.
LogKow:	4,24
BCF:	No data available.

Product/substance	Hydrocarbons, C6, isoalkanes, <5% n-hexane
Potential bioaccumulation:	No data available.
LogKow:	3,6 (pH: 7, 20 °C)
BCF:	501,2

Product/substance	n-hexane
Potential bioaccumulation:	No data available.
LogKow:	4 (pH: 7, 20 °C)
BCF:	501,2

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Other adverse effects

None known.

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

SECTION 13: Disposal considerations

RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)

None of the components are listed

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	Limited quantities: 1 L Tunnel restriction code: (D) See below for additional information.
IMDG	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	Limited quantities: 1 L EmS: F-D S-U See below for additional information.
IATA	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

DOT / See § 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport. See § 172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15: Regulatory information

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

15.2. U.S. Federal regulations

TSCA (the non-confidential portion)

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

cyclopentane is listed
propane is listed
ethanol;ethyl alcohol is listed
Tricyclo[3.3.1.1^{3,7}]decane is listed
Hydrocarbons, C6, isoalkanes, <5% n-hexane is listed
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics is listed
n-hexane is listed

Clean Air Act

n-hexane is regulated as a hazardous air pollutant (HAPS)
propane is regulated by section 112(r) with a reportable quantity (RQ) of: 10000 pounds

EPCRA Section 302

None of the components are listed

EPCRA Section 304

None of the components are listed

EPCRA section 313

n-hexane is listed

CERCLA

n-hexane is regulated with a Reportable Quantity (RQ) of: 5000 pounds

State regulations

California / Prop. 65

n-hexane is known to cause: Male Reproductive Toxicity
NSRL/MADL (µg/day): 28,000 (oral) / 20,000 (inhalation)

—

Massachusetts / Right To Know Act

cyclopentane is listed
propane is listed
ethanol;ethyl alcohol is listed
n-hexane is listed

New Jersey / Right To Know Act

cyclopentane / Substance number: 0583
cyclopentane is on the Special Health Hazard Substance List

—

propane / Substance number: 1594
propane is on the Special Health Hazard Substance List

—

ethanol;ethyl alcohol / Substance number: 0844
ethanol;ethyl alcohol is on the Special Health Hazard Substance List

—

n-hexane / Substance number: 1340
n-hexane is on the Special Health Hazard Substance List

—

New York / Right To Know Act

cyclopentane is listed
cyclopentane is regulated with a Treshold Reporting Quantity (TRQ) of: 10 pounds

—

propane is listed
propane is regulated with a Treshold Reporting Quantity (TRQ) of: 10 pounds

—

ethanol;ethyl alcohol is listed
ethanol;ethyl alcohol is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds

—

n-hexane is listed
n-hexane is regulated with a Reportable Quantity (RQ) of: 1 pounds
n-hexane is regulated with a Treshold Reporting Quantity (TRQ) of: 10 pounds

—

Pennsylvania / Right To Know Act

cyclopentane is listed

—

propane is listed

—

ethanol;ethyl alcohol is listed

—

n-hexane is listed

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

15.4. Restrictions for application

Restricted to professional users.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

15.5. Demands for specific education

No specific requirements.

15.6. Additional information

Not applicable.

15.7. Chemical safety assessment

No

15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H220, Extremely flammable gas.

H225, Highly flammable liquid and vapour.

H280, Contains gas under pressure; may explode if heated.

H304, May be fatal if swallowed and enters airways.

H315, Causes skin irritation.

H319, Causes serious eye irritation.

H336, May cause drowsiness or dizziness.

H361f, Suspected of damaging fertility.

H372, Causes damage to organs through prolonged or repeated exposure.

The full text of identified uses as mentioned in section 1

None known.

Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SARA = Superfund Amendments and Reauthorization Act

SCL = A specific concentration limit.

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TSCA = The Toxic Substances Control Act

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

Max Liese

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en