

1. Product and company identification

Product identifier

Trade name: 635L22 - Scanning Spray

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

General use: Coatings
For orthopedic procedures

Details of the supplier of the safety data sheet

Company name: Otto Bock Health Care
Street/POB-No.: 3820 W. Great Lakes Drive
Postal Code, city: Salt Lake City, UT 84120
USA

WWW: www.ottobockus.com

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Department responsible for information:
Quality Department,
Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),
Email: USRegulatory@ottobock.com

Additional information: Corporate headquarters:
Ottobock SE & Co. KGaA
Max-Näder-Straße 15
Duderstadt
Germany

Emergency phone number

CHEMTREC, Telephone: +1 (800) 424-9300

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

2. Hazards identification

Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: liquid

Form: Aerosol

Color: varying

Odor: characteristic

Classification: Aerosol - Category 1. Aquatic toxicity - chronic - Category 3.

Hazard symbols:



Signal word: **Danger**

Hazard statements: Extremely flammable aerosol.
Pressurised container: May burst if heated.
Harmful to aquatic life with long lasting effects.

Precautionary statements:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

Do not pierce or burn, even after use.

Avoid release to the environment.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Dispose of contents/container to hazardous or special waste collection point.

Regulatory status

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

Hazards not otherwise classified

Potentially explosive mixtures may form if adequate ventilation is not provided.

Inhaling can lead to irritations of the respiratory tract and mucous membrane.

Higher doses may lead to a narcotic effect.

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Mixture of the substances listed below with non-hazardous additions:

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 287-92-3	Cyclopentane	25 - 50 %	Flammable Liquid - Category 2. Aquatic toxicity - chronic - Category 3.
CAS 64-17-5	Ethanol	10 - 25 %	Flammable Liquid - Category 2. Eye Irritation - Category 2A.
CAS 281-23-2	Tricyclo[3.3.1.1 ^{3,7}]decane	< 10 %	Aquatic toxicity - acute - Category 1.
CAS 64742-49-0	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	< 5 %	Flammable Liquid - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Aspiration Toxicity - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	< 5 %	Flammable Liquid - Category 2. Skin Irritation - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Aspiration Toxicity - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 64742-49-0	Hydrocarbons, C6, isoalkanes, < 5% n-hexane	< 5 %	Flammable Liquid - Category 2. Skin Irritation - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Aspiration Toxicity - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 64742-49-0	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	< 5 %	Flammable Liquid - Category 2. Skin Irritation - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Aspiration Toxicity - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 110-54-3	n-Hexane	< 1 %	Flammable Liquid - Category 2. Skin Irritation - Category 2. Reproductive toxicant - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Specific Target Organ Toxicity (Repeated Exposure) - Category 2. Aspiration Toxicity - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 74-98-6	Propane	25 - 50 %	Flammable Gas - Category 1. Compressed Gas.

4. First aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand.
In case of inhalation:	Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Make sure he/she is warm and comfortable. Seek medical treatment in case of troubles. If victim is at risk of losing consciousness, position and transport on their side.
Following skin contact:	Immediately clean with water and soap followed by thorough rinsing. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.

After swallowing: Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. In case of vomiting, lay at least head on side. Seek medical attention.

Most important symptoms/effects, acute and delayed

Repeated exposure may cause skin dryness or cracking. Inhaling can lead to irritations of the respiratory tract and mucous membrane.

Higher doses may lead to a narcotic effect.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

<= -20.2 °F

Auto-ignition temperature: 507.2 °F

Suitable extinguishing media:

Water spray jet, dry chemical powder

Extinguishing media which must not be used for safety reasons:

full water jet

Specific hazards arising from the chemical

Extremely flammable aerosol. Pressurised container: May burst if heated. On heating or in case of fire toxic gases may form.

Furthermore, there may develop: carbon monoxide and carbon dioxide. Potentially explosive vapor/air mixtures may form.

Protective equipment and precautions for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Heating will lead to pressure increase: Danger of bursting and explosion. Use fine water spray to cool endangered containers.

Move undamaged containers from immediate hazard area if it can be done safely.

Do not allow fire water to penetrate into surface or ground water.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6. Accidental release measures

Personal precautions:

Provide adequate ventilation. Eliminate all ignition sources if safe to do so.

Do not breathe mist/vapors/spray. Avoid contact with the substance.

Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Keep unprotected people away.

Environmental precautions:

Do not allow to enter into ground-water, surface water or drains.

In case of release, notify competent authorities. Danger of explosion!

Methods for clean-up: Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Beware of reignition. Thoroughly clean surrounding area. In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out). Never return spills in original containers for re-use.

Additional information: Use explosion-proof equipment and non-sparking tools/utensils.
Special danger of slipping by leaking/spilling product.

7. Handling and storage

Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapors/spray. Wear appropriate protective equipment.
Guarantee sufficient ventilation during and after use, in order to prevent vapor accumulation. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Do not breathe mist/vapors/spray. Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Take precautionary measures against static discharges. Use only explosion-protected equipment/instruments. Do not weld. In partially filled containers explosive mixtures may form. Vapors may form explosive mixtures with air.

Storage

Requirements for storerooms and containers:
Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from heat and direct sunlight. Keep at temperature not exceeding 122 °F.
Store containers in upright position. Explosion protection required. Store locked up.

Hints on joint storage: Do not store together with combustible or self-igniting materials or any highly flammable solids. Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
287-92-3	Cyclopentane	USA: ACGIH: TWA	1,000 ppm
		USA: NIOSH: TWA	1,720 mg/m ³ ; 600 ppm
64-17-5	Ethanol	USA: ACGIH: STEL	1,000 ppm
		USA: IDLH: TWA	3,300 ppm [10% LEL]
		USA: NIOSH: TWA	1,900 mg/m ³ ; 1,000 ppm
		USA: OSHA: TWA	1,900 mg/m ³ ; 1,000 ppm
110-54-3	n-Hexane	USA: ACGIH: TWA	176 mg/m ³ ; 50 ppm
			(may be absorbed through the skin)
		USA: IDLH: TWA	1,100 ppm [10% LEL]
		USA: NIOSH: TWA	180 mg/m ³ ; 50 ppm
		USA: OSHA: TWA	1,800 mg/m ³ ; 500 ppm
74-98-6	Propane	USA: IDLH: TWA	2,100 ppm [10% LEL]
		USA: NIOSH: TWA	1,800 mg/m ³ ; 1,000 ppm
		USA: OSHA: TWA	1,800 mg/m ³ ; 1,000 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
110-54-3	n-Hexane	USA: ACGIH-BEI, urine	0.5 mg/L	2,5-Hexanedion	end of exposure or end of shift

Engineering controls

Make sure there is sufficient air exchange and / or that working rooms are air suctioned.

See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Wear suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: In case of inadequate ventilation wear respiratory protection.

Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.

The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.

General hygiene considerations:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Use only non-sparking tools.

Do not breathe mist/vapors/spray. Do not eat, drink or smoke when using this product.

Take off contaminated clothing and wash it before reuse. Protect skin by using skin protective cream. Wash hands thoroughly after handling.

Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Physical state at 68 °F and 101.3 kPa: liquid Form: Aerosol Color: varying
Odor:	characteristic
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	-258.7 °F
Flash point/flash point range:	<= -20.2 °F
Evaporation rate:	No data available
Flammability:	Extremely flammable aerosol.
Explosion limits:	LEL (Lower Explosion Limit): 0.60 Vol-% UEL (Upper Explosive Limit): 15.00 Vol-%
Vapor pressure:	at 68 °F: 25 kPa
Vapor density:	No data available
Density:	No data available
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	507.2 °F
Thermal decomposition:	No data available
Explosive properties:	Product is not explosive. Potentially explosive vapor/air mixtures may form.
Oxidizing characteristics:	not oxidising
Solvent content:	58.29 %
Solid content:	9.072 %
Additional information:	Propellant content: 32.64 %

10. Stability and reactivity

Reactivity:	Extremely flammable aerosol. Vapors may form explosive mixtures with air.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Pressurised container: May burst if heated.
Conditions to avoid:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. avoid Shock.
Incompatible materials:	Oxidizing agent

Hazardous decomposition products:

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition:

No data available

11. Toxicological information

Toxicological tests

Toxicological effects:

The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Repeated exposure may cause skin dryness or cracking.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Sensitisation to the respiratory tract: 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/Genotoxicity: 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.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

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

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

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Harmful to aquatic life with long lasting effects.

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

Fish toxicity:

LL50 Oncorhynchus mykiss: 12 mg/L/96h (OECD 203)

NOELR Oncorhynchus mykiss: 2.187 mg/L/28d (QSAR)

Daphnia toxicity:

EL50 Daphnia magna (Big water flea): 3 mg/L/48h (OECD 202)

NOELR Daphnia magna (Big water flea): 3.818 mg/L/21d (QSAR)

Algae toxicity:

EL50 Pseudokirchneriella subcapitata (green algae), growth rate: 55 mg/L/72h (OECD 201)

NOELR Pseudokirchneriella subcapitata (green algae), growth rate: 1.628 mg/L/72h (QSAR)

Information about Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Fish toxicity:

LL50 Oncorhynchus mykiss: > 11.4 mg/L/96h (OECD 203)

Daphnia toxicity:

EL50 Daphnia magna (Big water flea): 17.06 mg/L/48h (QSAR)

Algae toxicity:

EL50 Pseudokirchneriella subcapitata (green algae): 10 - 30 mg/L/72h (OECD 201)

Information about Hydrocarbons, C6, isoalkanes, < 5% n-hexane:

Fish toxicity: LL50 Oncorhynchus mykiss: 18.27 mg/L/96h (OECD 203)

NOELR Oncorhynchus mykiss: 4.089 mg/L/28d (QSAR)

Daphnia toxicity:

EL50 Daphnia magna (Big water flea): 31.9 mg/L/48h (OECD 202)

NOELR Daphnia magna (Big water flea): 7.1381 mg/L/21d (QSAR)

Algae toxicity: EC50 Pseudokirchneriella subcapitata (green algae), biomass: 2.6 mg/L/72h (OECD 201)

EC50 Pseudokirchneriella subcapitata (green algae), growth rate: 55 mg/L/72h (OECD 201)

NOEL Pseudokirchneriella subcapitata (green algae), growth rate: 30 mg/L/72h (OECD 201)

Information about Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Fish toxicity: LL50 Oncorhynchus mykiss: > 13.4 mg/L/96h (OECD 203)

NOELR Oncorhynchus mykiss: 1.534 mg/L/28d (QSAR)

Daphnia toxicity:

EL50 Daphnia magna (Big water flea): 3 mg/L/48h (OECD 202)

NOELR Daphnia magna (Big water flea): 1 mg/L/21d (OECD 211)

Algae toxicity:

EL50 Pseudokirchneriella subcapitata (green algae): 10 - 30 mg/L/72h (OECD 201)

NOELR Pseudokirchneriella subcapitata (green algae), growth rate: approx. 10 mg/L/72h (OECD 201)

Mobility in soil

No data available

Persistence and degradability

Further details: Biodegradability:
Ethanol: 74 %/5 d
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane: 83 %/10 d
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane: 83 %/10 d
Hydrocarbons, C6, isoalkanes, < 5% n-hexane: 83 %/10 d

Additional ecological information

General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

Product

Recommendation: Do not pierce or burn, even after use.
Special waste. Dispose of waste according to applicable legislation.
Do not dispose of with household waste. Do not empty into drains.

Package

Recommendation: Dispose of waste according to applicable legislation. Handle empty containers with care.
Incineration may cause explosion. Empty carefully and completely, if possible.
Non-contaminated packages must be recycled or disposed of.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:
UN 1950

UN proper shipping name

ADR/RID, IMDG: UN 1950, AEROSOLS
IATA-DGR: UN 1950, AEROSOLS, FLAMMABLE

Transport hazard class(es)

ADR/RID: Class 2, Code: 5F
IMDG: Class 2.1, Subrisk -
IATA-DGR: Class 2.1

Packing group

ADR/RID, IATA-DGR: not applicable
IMDG: -

Environmental hazards

Marine pollutant: no

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

No data available



USA: Department of Transportation (DOT)

Identification number: UN1950
 Proper shipping name: UN 1950, AEROSOLS
 Hazard class or Division: 2.1
 Labels: 2.1
 Special Provisions: N82
 Packaging – Exceptions: 306
 Packaging – Non-bulk: None
 Packaging – Bulk: None
 Quantity limitations – Passenger aircraft / rail:
 75 kg
 Quantity limitations – Cargo only: 150 kg
 Vessel stowage – Location: A
 Vessel stowage – Other: 25, 87, 126, 157



Sea transport (IMDG)

UN number: UN 1950
 Proper shipping name: UN 1950, AEROSOLS
 Class or division, Subsidiary risk: Class 2.1, Subrisk -
 Packing Group: -
 EmS: F-D, S-U
 Special Provisions: 63 190 277 327 344 381 959
 Limited quantities: 1000 mL
 Excepted quantities: E0
 Package - Instructions: P207, LP200
 Package - Provisions: PP87, L2
 IBC - Instructions: -
 IBC - Provisions: -
 Tank instructions - IMO: -
 Tank instructions - UN: -
 Tank instructions - Provisions: -
 Stowage and handling: SW1 SW22
 Segregation: SG69
 Properties and observations: -
 Marine pollutant: no
 Segregation group: none

Air transport (IATA)

UN/ID number: UN 1950
 Proper shipping name: UN 1950, AEROSOLS, FLAMMABLE
 Class or division, Subsidiary risk: Class 2.1
 Hazard label: Flamm. gas
 Excepted Quantity Code: E0
 Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y203 - Max. Net Qty/Pkg. 30 kg G
 Passenger and Cargo Aircraft: Pack.Instr. 203 - Max. Net Qty/Pkg. 75 kg
 Cargo Aircraft only: Pack.Instr. 203 - Max. Net Qty/Pkg. 150 kg
 Special Provisions: A145 A167 A802
 Emergency Response Guide-Code (ERG): 10L

15. Regulatory information

National regulations - U.S. Federal Regulations

Cyclopentane:	TSCA Inventory: listed
	NIOSH Recommendations:
	Occupational Health Guideline: 0171*
Ethanol:	TSCA Inventory: listed
	NIOSH Recommendations:
	Occupational Health Guideline: 0262
Tricyclo[3.3.1.1 ^{3,7}]decane:	TSCA Inventory: listed
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:	TSCA Inventory: listed; UVCB
n-Hexane:	TSCA Inventory: listed
	Clean Air Act:
	CAA Hazardous Air Pollutants: yes
	CAA SOCM Chemical: yes
	Other Environmental Laws:
	CERCLA: RQ 5000 lbs.
	SARA Title III - Section 313, Toxic Release: Conc. 1.0% /
	Threshold Standard
	NIOSH Recommendations:
	Occupational Health Guideline: 0322
Propane:	TSCA Inventory: listed
	Clean Air Act:
	CAA Accidental Release Prevention: Threshold 10000 lbs.
	/ Basis for listing = f
	NIOSH Recommendations:
	Occupational Health Guideline: 0524

National regulations - U.S. State Regulations

n-Hexane:	<p>California Proposition 65: cancer</p> <p>Delaware Air Quality Management List: DRQ: 5000 - RQ State: Federal Regulations Apply</p> <p>Idaho Air Pollutant List: Title 585: AAC: 9 - EL: 12 - OEL: 180 - Title 586: -</p> <p>Maine Hazardous Air Pollutants: Me 2005: HAP - Hap Rpt: 2000</p> <p>Massachusetts Haz. Substance codes: 2,4,5,6</p> <p>Minnesota Haz. Substance: Codes: ANO - Ratings: 9.57 - Status: Air Pollutant Title III. TRI.</p> <p>New Jersey RTK Hazardous Substance: DOT: 1208 - Sub No.: 1340 - TPQ: -</p> <p>New York List of Hazardous Substances: RQ-Air: 1 - RQ-Land: 1 - Note: No Note Associated with this chemical.</p> <p>Pennsylvania Haz. Substance code: -</p> <p>Washington Air Contaminant: TWA: 50 ppm - 180 mg</p>
Propane:	<p>California Proposition 65 code: -</p> <p>Delaware Air Quality Management List: DRQ: F 1000** - RQ State: State requirements differs from Federal</p> <p>Massachusetts Haz. Substance codes: 2,4,5,6</p> <p>Minnesota Haz. Substance: Codes: AP - Ratings: - - Status: Title III</p> <p>New Jersey RTK Hazardous Substance: DOT: 1978 - Sub No.: 1594 - TPQ: -</p> <p>Pennsylvania Haz. Substance code: -</p> <p>Washington Air Contaminant: TWA: 1000 ppm - 1800 mg</p>

16. Other information

Text for labeling:

Contains 25 - 50 % Cyclopentane, 10 - 25 % Ethanol, < 10 % Tricyclo[3.3.1.1³,7]decane, < 5 % Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane, < 5 % Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, < 5 % Hydrocarbons, C6, isoalkanes, < 5% n-hexane, < 5 % Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics, < 1 % n-Hexane, 25 - 50 % Propane. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)
Fire: 4 (Severe)
Reactivity: 2 (Moderate)

HMIS Version III Rating:

Health: 1 (Slight)
Flammability: 4 (Severe)
Physical Hazard: 2 (Moderate)
Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	4
PHYSICAL HAZARD	2
	X

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 Aerosol: Aerosol
 Aquatic toxicity - acute: Hazardous to the aquatic environment - acute
 Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic
 AS/NZS: Australian Standards/New Zealand Standards
 Aspiration Toxicity: Aspiration toxicity
 CAS: Chemical Abstracts Service
 CFR: Code of Federal Regulations
 CLP: Classification, Labelling and Packaging
 DMEL: Derived minimal effect level
 DNEL: Derived no-effect level
 EC: European Community
 EC50: Effective Concentration 50%
 EL50: Effective loading rate 50%
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
 EN: European Standard
 EQ: Excepted quantities
 Eye Irritation: Eye irritation
 Flammable Gas: Flammable gases
 Flammable Liquid: Flammable liquid
 IATA: International Air Transport Association
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IMDG Code: International Maritime Dangerous Goods Code
 IMO: International Maritime Organization
 LEL: Lower Explosion Limit
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
 OECD: Organisation for Economic Co-operation and Development
 OEL: Occupational Exposure Limit Value
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, bioaccumulative and toxic
 PNEC: Predicted no-effect concentration
 Reproductive toxicant: Reproductive toxicity
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 Skin Irritation: Skin irritation
 STOT RE: Specific target organ toxicity - repeated exposure
 STOT SE: Specific target organ toxicity - single exposure
 TLV: Threshold Limit Value
 TRGS: Technical Rules for Hazardous Substances
 UN: United Nations
 vPvB: Very persistent and very bioaccumulative
 WEL: Workplace Exposure Limit

Reason of change: General revision

Date of first version: 8/27/2020

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.