VULCANIZING CEMENT

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Revision Date: 06/28/2024 Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Form : Mixture

Product Name : Xtra seal VULCANIZING CEMENT

Product Code : 14-004, 14-008, 14-009, 14-020, 14-032, 14-041, 14-511, 14-512, 15-026

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

1.2.1. Relevant Identified Uses

Use of the Substance/Mixture : Tyre maintenance

1.2.2. Uses Advised Against

No additional information available

1.3. Details of the Supplier of the Safety Data Sheet

Company

31 Incorporated

100 Enterprise Dr.

Newcomerstown, OH 43832 USA

+1 (740) 498-8324

info@31inc.com

1.4. Emergency Telephone Number

Emergency Number : VelocityEHS

(800)255-3924 (North America)

+1 (813)248-0585 (International)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification According to Regulation (EC) No. 1272/2008

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Resp. Sens. 1	H334
Skin Sens. 1	H317
STOT SE 3	H336
Asp. Tox. 1	H304
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of hazard classes, H- and EUH-statements: see section 16

2.2. Label Elements

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

Hazard Pictograms (CLP) :

GHS02 GHS07 GHS08 GHS09

Signal Word (CLP) : Danger

Hazard Statements (CLP) : H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336 - May cause drowsiness or dizziness.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.

P261 - Avoid breathing mist, vapours, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective clothing, protective gloves.
P284 - In case of inadequate ventilation wear respiratory protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTRE or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P331 - Do NOT induce vomiting.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other Hazards

Other Hazards Not Contributing to the Classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII

The substance/mixture does not contain substance(s) equal to or greater than 0.1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008
n-Heptane	(CAS-No.) 142-82-5 (EC-No.) 205-563-8 (EC Index-No.) 601-008-00-2	75	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Rubber, natural	(CAS-No.) 9006-04-6 (EC-No.) 232-689-0	25	Resp. Sens. 1, H334 Skin Sens. 1, H317

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

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

First-Aid Measures General : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-Aid Measures After Inhalation : When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-Aid Measures After Skin Contact : Immediately remove contaminated clothing. Wash affected area with soap and water for at least 15 minutes. Obtain medical attention if irritation/rash develops or persists. In case of contamination of larger areas, rinse skin with water/shower.

First-Aid Measures After Eye Contact : Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

First-Aid Measures After Ingestion : Rinse mouth. Do NOT induce vomiting. Place affected person on their side. Immediately call a POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Effects : May cause drowsiness and dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Skin sensitisation. Causes skin irritation. May be fatal if swallowed and enters airways.

Symptoms/Effects After Inhalation : High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms. Exposure may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitisation reaction.

Symptoms/Effects After Skin Contact : May cause an allergic skin reaction. Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Effects After Eye Contact : May cause slight irritation to eyes.

Symptoms/Effects After Ingestion : Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms : May cause sensitisation by inhalation and by skin contact.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO_2). Water may be ineffective but water should be used to keep fire-exposed container cool.

Unsuitable Extinguishing Media : Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard : Highly flammable liquid and vapour.

Explosion Hazard : May form flammable or explosive vapour-air mixture.

Reactivity : Reacts violently with strong oxidisers. Increased risk of fire or explosion.

Hazardous Combustion Products : Carbon oxides. Smoke.

5.3. Advice for Firefighters

Precautionary Measures Fire : Exercise caution when fighting any chemical fire.

Firefighting Instructions : Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other 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

General Measures : Do not breathe vapour, mist or spray. Avoid all contact with skin, eyes, or clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.

6.1.1. For Non-Emergency Personnel

Protective Equipment : Use appropriate personal protective equipment (PPE).

Emergency Procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

Measures In Case Of Dust Release : Not applicable.

6.1.2. For Emergency Responders

Protective Equipment : Equip cleanup crew with proper protection.

Emergency Procedures : Eliminate ignition sources first, then ventilate the area. Upon arrival at the scene, a first responder is expected to recognise the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up : Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Other Information : No additional information available.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed : Handle empty containers with care because residual vapours are flammable. The vapours are denser than air and may travel along the ground. Distance ignition possible.

Precautions for Safe Handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapours, mist, spray. Take precautionary measures against static discharge. Use only non-sparking tools.

Hygiene Measures : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures : Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions : Store in accordance with applicable national storage class systems. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

Incompatible Materials : Strong acids, strong bases, strong oxidisers.

7.3. Specific End Use(S)

Tyre maintenance

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Please see section 16 for the legal basis of limit value information in section 8.1, including the national legislation or provision which gives rise to a given limit.

n-Heptane (142-82-5)		
EU	IOELV TWA (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	2085 mg/m³
EU	IOELV TWA (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	500 ppm
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	2000 mg/m³ (Heptane isomers)
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	500 ppm (Heptane isomers)
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	8000 mg/m³ (Heptane (all isomers))
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	2000 ppm (Heptane (all isomers))
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	1664 mg/m³
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	400 ppm
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	2085 mg/m³
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	500 ppm
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	1600 mg/m³
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	2085 mg/m³
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	500 ppm
Croatia	OEL Chemical Category (Legal Basis:OG No. 91/2018)	Skin notation
Cyprus	OEL TWA (Legal Basis:KDP 16/2019)	2085 mg/m³
Cyprus	OEL TWA (Legal Basis:KDP 16/2019)	500 ppm
Czech Republic	OEL TWA (Legal Basis:Reg. 41/2020)	1000 mg/m³
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	820 mg/m³
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	200 ppm
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	2085 mg/m³

Estonia	OEL TWA (Legal Basis:Regulation No. 105)	500 ppm
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	1200 mg/m³ (Heptane)
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	300 ppm (Heptane)
Finland	OEL STEL (Legal Basis:HTP-ARVOT 2020)	2100 mg/m³
Finland	OEL STEL (Legal Basis:HTP-ARVOT 2020)	500 ppm
France	OEL STEL (Legal Basis:INRS ED 984)	2085 mg/m³ (restrictive limit)
France	OEL STEL (Legal Basis:INRS ED 984)	500 ppm (restrictive limit)
France	OEL TWA (Legal Basis:INRS ED 984)	1668 mg/m³ (restrictive limit)
France	OEL TWA (Legal Basis:INRS ED 984)	400 ppm (restrictive limit)
Germany	OEL TWA (Legal Basis:TRGS 900)	2100 mg/m³ (all isomers)
Germany	OEL TWA (Legal Basis:TRGS 900)	500 ppm (all isomers)
Gibraltar	OEL TWA (Legal Basis:LN. 2018/181)	2085 mg/m³
Gibraltar	OEL TWA (Legal Basis:LN. 2018/181)	500 ppm
Greece	OEL TWA (Legal Basis:PWHSE)	2000 mg/m³
Greece	OEL TWA (Legal Basis:PWHSE)	500 ppm
Greece	OEL STEL (Legal Basis:PWHSE)	2000 mg/m³
Greece	OEL STEL (Legal Basis:PWHSE)	500 ppm
Hungary	OEL TWA (Legal Basis:Decree No. 05/2020)	2000 mg/m³
Ireland	OEL TWA (Legal Basis:2020 COP)	2085 mg/m³
Ireland	OEL TWA (Legal Basis:2020 COP)	500 ppm
Ireland	OEL STEL (Legal Basis:2020 COP)	6255 mg/m³ (calculated)
Ireland	OEL STEL (Legal Basis:2020 COP)	1500 ppm (calculated)
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	400 ppm (Heptane, all isomers)
USA ACGIH	OEL STEL (Legal Basis:IMDFN1)	500 ppm (Heptane, all isomers)
Italy	OEL TWA (Legal Basis:Decree 81)	2085 mg/m³
Italy	OEL TWA (Legal Basis:Decree 81)	500 ppm
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	350 mg/m³
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	85 ppm
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	2085 mg/m³
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	500 ppm
Lithuania	OEL STEL (Legal Basis:HN 23:2011)	3128 mg/m³
Lithuania	OEL STEL (Legal Basis:A-N 684)	750 ppm
Luxembourg	OEL TWA (Legal Basis:A-N 684)	2085 mg/m³
Luxembourg	OEL TWA (Legal Basis:A-N 684)	500 ppm
Malta	OEL TWA (Legal Basis:MOHSAA Ch. 424)	2085 mg/m³
Malta	OEL TWA (Legal Basis:MOHSAA Ch. 424)	500 ppm
Netherlands	OEL TWA (Legal Basis:OWCRLV)	1200 mg/m³
Netherlands	OEL STEL (Legal Basis:OWCRLV)	1600 mg/m³
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	800 mg/m³
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	200 ppm
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	1000 mg/m³ (value calculated)
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	250 ppm (value calculated)
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	1200 mg/m³
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	2000 mg/m³
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	2085 mg/m³ (indicative limit value)
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	500 ppm (indicative limit value)
Portugal	OEL STEL (Legal Basis:Portuguese Norm NP 1796:2014)	500 ppm
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	2085 mg/m³
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	500 ppm
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	2085 mg/m³
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	500 ppm
Slovenia	OEL TWA (Legal Basis:No. 79/19)	2085 mg/m³ (applies to all isomers)
Slovenia	OEL TWA (Legal Basis:No. 79/19)	500 ppm (applies to all isomers)
Slovenia	OEL STEL (Legal Basis:No. 79/19)	2085 mg/m³ (applies to all isomers)
Slovenia	OEL STEL (Legal Basis:No. 79/19)	500 ppm (applies to all isomers)
Spain	OEL TWA (Legal Basis:OELCAIS)	2085 mg/m³ (indicative limit value)
Spain	OEL TWA (Legal Basis:OELCAIS)	500 ppm (indicative limit value)
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	800 mg/m³

Sweden	OEL TLV (Legal Basis:AFS 2018:1)	200 ppm
Sweden	OEL STEL (Legal Basis:AFS 2018:1)	1200 mg/m³
Sweden	OEL STEL (Legal Basis:AFS 2018:1)	300 ppm
Rubber, natural (9006-04-6)		
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	0,0001 mg/m³ (in allergenic proteins)
Belgium	OEL Chemical Category (Legal Basis:Royal Decree 21/01/2020)	Skin in allergenic proteins
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	0,6 mg/m³ (process-fume) 6 mg/m³ (process-dust)
Ireland	OEL TWA (Legal Basis:2020 COP)	0,0001 mg/m³ (inhalable allergenic proteins)
Ireland	OEL STEL (Legal Basis:2020 COP)	0,0003 mg/m³ (calculated-inhalable allergenic proteins)
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	0,0001 mg/m³ (inhalable particulate matter)
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	0,001 mg/m³ (inhalable fraction)
Portugal	OEL Chemical Category (Legal Basis:Portuguese Norm NP 1796:2014)	Sensitiser expressed in inhalable allergenic proteins,skin - potential for cutaneous exposure
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	0,1 mg/m³
Spain	OEL TWA (Legal Basis:OELCAIS)	0,001 mg/m³
Spain	OEL Chemical Category (Legal Basis:OELCAIS)	Sensitiser as total proteins, skin - potential for cutaneous absorption as total proteins
Switzerland	OEL Chemical Category (Legal Basis:OLVSNAIF)	Sensitiser

8.2. Exposure Controls

Appropriate Engineering Controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapours may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.

Personal Protective Equipment : Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment.

Materials for Protective Clothing : Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Hand Protection : Wear protective gloves.

Eye Protection : Chemical safety goggles.

Skin and Body Protection : Wear suitable protective clothing.

Respiratory Protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information : When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State : Liquid

Colour, Appearance : Cloudy liquid

Colour : No data available

Odour : Solvent-like

Odour Threshold : No data available

pH : Not available

Evaporation Rate : No data available

Melting Point : Not available

Freezing Point : Not available

Boiling Point : ≈ 93 °C

Flash Point : ≈ 0 °C

Auto-Ignition Temperature	:	≈ 215 °C
Decomposition Temperature	:	No data available
Flammability	:	1,1 – 6,7 Vol %
Vapour Pressure	:	≈ 48 hPa [36 mm Hg]
Relative Vapour Density At 20°C	:	No data available
Relative Density	:	No data available
Density	:	≈ 0,77 g/cm³
Solubility	:	Water: Not miscible
Partition Coefficient n-Octanol/Water	:	No data available
Viscosity	:	No data available
Explosive Properties	:	Product is not explosive, however, formation of explosive air-vapour mixture is possible.
Oxidising Properties	:	No data available
Explosive Limits	:	Not available
Particle Aspect Ratio	:	Not applicable
Particle Aggregation State	:	Not applicable
Particle Agglomeration State	:	Not applicable
Particle Specific Surface Area	:	Not applicable
Particle Dustiness	:	Not applicable

9.2. Other Information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reacts violently with strong oxidisers. Increased risk of fire or explosion.

10.2. Chemical Stability

Highly flammable liquid and vapour. May form flammable or explosive vapour-air mixture.

10.3. Possibility of Hazardous Reactions

Hazardous polymerisation will not occur.

10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials

Strong acids, strong bases, strong oxidisers.

10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Smoke. Carbon oxides (CO, CO_2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Hazard Classes As Defined In Regulation (Ec) No 1272/2008

Likely Routes of Exposure	:	Inhalation, Ingestion, Dermal. Eye contact
Acute Toxicity (Oral)	:	Not classified (Based on available data, the classification criteria are not met)
Acute Toxicity (Dermal)	:	Not classified (Based on available data, the classification criteria are not met)
Acute Toxicity (Inhalation)	:	Not classified (Based on available data, the classification criteria are not met)

n-Heptane (142-82-5)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	3000 mg/kg
LC50 Inhalation Rat	> 73,5 mg/l/4h

Skin Corrosion/Irritation	:	Causes skin irritation.
Eye Damage/Irritation	:	Not classified (Based on available data, the classification criteria are not met)
Respiratory or Skin Sensitisation	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ Cell Mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)
Reproductive Toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Specific Target Organ Toxicity (Single Exposure)	:	May cause drowsiness or dizziness.
Specific Target Organ Toxicity (Repeated Exposure)	:	Not classified (Based on available data, the classification criteria are not met)

Aspiration Hazard : May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation : High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms. Exposure may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitisation reaction.

Symptoms/Injuries After Skin Contact : May cause an allergic skin reaction. Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact : May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion : Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms : May cause sensitisation by inhalation and by skin contact.

11.2. Information On Other Hazards

Adverse Health Effects Caused By Endocrine Disrupting Properties : No endocrine-disrupting effects are expected in humans or target animals.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Very toxic to aquatic life with long lasting effects.

Ecology - Water : Very toxic to aquatic life with long lasting effects.

Hazardous To The Aquatic Environment, Short–Term (Acute) : Very toxic to aquatic life.

Hazardous To The Aquatic Environment, Long–Term (Chronic) : Very toxic to aquatic life with long lasting effects.

n-Heptane (142-82-5)	
LC50 - Fish [1]	375 mg/l (Exposure time: 96 h - Species: Cichlid fish)
EC50 - Crustacea [1]	0,1 mg/l

12.2. Persistence and Degradability

Xtra seal VULCANIZING CEMENT	
Persistence and Degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential

Xtra seal VULCANIZING CEMENT	
Bioaccumulative Potential	Bioaccumulation of product components cannot be excluded.

n-Heptane (142-82-5)	
Partition coefficient n-octanol/water (Log Pow)	4,66

12.4. Mobility in Soil

Xtra seal VULCANIZING CEMENT	
Ecology - Soil	Hydrocarbon film may develop and spread on the surface of water. Some low weight components will become volatile, while others will adsorb to sediment particles. Both of these scenarios represent hazards to the aquatic ecosystem.

12.5. Results of PBT and vPvB Assessment

Does not contain any PBT/vPvB substances >= 0.1% assessed in accordance with REACH Annex XVIII

12.6. Endocrine Disrupting Properties

Adverse Effects On The Environment Caused By Endocrine Disrupting Properties : Endocrine disrupting effects are not expected for the environment.

12.7. Other Adverse Effects

Other Adverse Effects : None known.

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Regional Legislation (Waste) : Disposal must be done according to official regulations.

Waste Treatment Methods : Incineration is the preferred method for disposal of waste product.

Sewage Disposal Recommendations : Do not dispose of waste into sewer. Do not empty into drains.

Product/Packaging Disposal Recommendations : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information : Handle empty containers with care because residual vapours are flammable.

Ecology - Waste Materials : Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN Number or ID Number				
UN 1206	UN 1206	UN 1206	UN 1206	UN 1206
14.2. UN Proper Shipping Name				
HEPTANES	HEPTANES	Heptanes	HEPTANES	HEPTANES
14.3. Transport Hazard Class(Es)				
3	3	3	3	3
				
14.4. Packing Group				
II	II	II	II	II
14.5. Environmental Hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes

14.6. Special Precautions For User

No additional information available

14.7. Maritime Transport in Bulk According to IMO instruments

Not applicable

SECTION 15: REGULATORY INFORMATION

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

15.1.1. EU-Regulations

15.1.1.1. REACH Annex XVII Information

Listed on REACH Annex XVII (Restriction Conditions). The following restrictions are applicable:

3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Xtra seal VULCANIZING CEMENT ; n-Heptane
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Xtra seal VULCANIZING CEMENT ; n-Heptane
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Xtra seal VULCANIZING CEMENT ; n-Heptane
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	n-Heptane

15.1.1.2. REACH Candidate List Information

Contains no substance(s) listed on the REACH Candidate List

15.1.1.3. POP (2019/1021) - Persistent Organic Pollutants Information

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

15.1.1.4. PIC Regulation EU (649/2012) - Export and Import of Hazardous Chemicals Information

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

15.1.1.5. REACH Annex XIV Information

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

15.1.1.6. Substances Depleting the Ozone layer (1005/2009) Information

No additional information available

15.1.1.7. EC Inventory Information

n-Heptane (142-82-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Rubber, natural (9006-04-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.1.1.8. Other Information

No additional information available

15.1.2. National Regulations

No additional information available

15.1.3. International Inventory Lists

n-Heptane (142-82-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

Rubber, natural (9006-04-6)
Listed on the Canadian DSL (Domestic Substances List)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Date of Preparation or Latest Revision : 06/28/2024

Data Sources : Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.

Other Information : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Full Text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

Classification and Procedure Used to Derive the Classification for Mixtures According to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 2	On basis of test data

Skin Irrit. 2	Calculation method
Resp. Sens. 1	Calculation method
Skin Sens. 1	Calculation method
STOT SE 3	Calculation method
Asp. Tox. 1	Expert judgement
Aquatic Acute 1	Calculation method
Aquatic Chronic 1	Calculation method

Indication of Changes

No additional information available

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists
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
ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
BEI - Biological Exposure Indices (BEI)
BOD – Biochemical Oxygen Demand
CAS No. - Chemical Abstracts Service Number
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008
COD – Chemical Oxygen Demand
EC – European Community
EC50 - Median Effective Concentration
EEC – European Economic Community
EINECS – European Inventory of Existing Commercial Chemical Substances
EmS-No. (Fire) - IMDG Emergency Schedule Fire
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage
EU – European Union
ErC50 - EC50 in Terms of Reduction Growth Rate
GHS – Globally Harmonized System of Classification and Labeling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC Code - International Bulk Chemical Code
IMDG - International Maritime Dangerous Goods
IPRV - Ilgalaikio Poveikio Ribinis Dydis
IOELV – Indicative Occupational Exposure Limit Value
LC50 - Median Lethal Concentration
LD50 - Median Lethal Dose
LOAEL - Lowest Observed Adverse Effect Level
LOEC - Lowest-Observed-Effect Concentration
Log Koc - Soil Organic Carbon-water Partitioning Coefficient
Log Kow - Octanol/water Partition Coefficient
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration
MARPOL - International Convention for the Prevention of Pollution
NDS - Najwyzsze Dopuszczalne Stezenie
NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe
NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
NRD - Nevirsytinas Ribinis Dydis
NTP – National Toxicology Program
OEL - Occupational Exposure Limits
PBT - Persistent, Bioaccumulative and Toxic
PEL - Permissible Exposure Limit
pH – Potential Hydrogen
REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals
RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail
SADT - Self Accelerating Decomposition Temperature
SDS - Safety Data Sheet
STEL - Short Term Exposure Limit
STOT - Specific Target Organ Toxicity
TA-Luft - Technische Anleitung zur Reinhaltung der Luft
TEL TRK – Technical Guidance Concentrations
ThOD – Theoretical Oxygen Demand
TLM - Median Tolerance Limit
TLV - Threshold Limit Value
TPRD - Trumpalaikio Poveikio Ribinis Dydis
TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern
TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine
TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte
TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
VOC – Volatile Organic Compounds
VLA-EC - Valor Límite Ambiental Exposición de Corta Duración
VLA-ED - Valor Límite Ambiental Exposición Diaria
VLE – Valeur Limite D'exposition
VME – Valeur Limite De Moyenne Exposition
vPvB - Very Persistent and Very Bioaccumulative
WEL – Workplace Exposure Limit
WGK - Wassergefährdungsklasse

Limit Value Legal Basis*

*Includes the below and any related regulations/provisions, and subsequent amendements

EU - 2019/1831 EU in accor. with 98/24/EC - Directive 2019/1831/EU of October 24, 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 2000/39/EC.

EU - 2019/1243/EU, and 98/24/EC) - Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and amendment Regulation (EU) 2019/1243.

Austria - BGBl. II Nr. 254/2018 - Ordinance on Limit Values for Workplace Substances and on Carcinogens from the Federal Ministry of Economics and Labour, Published in 2003, Appendix 1: Substance List, Published through: Ministry of Economics and Labour of the Republic of Austria amended through the Government Gazette II (BGBL. II) No 119/2004) & BGBI. II No. 242/2006, BGBI. II No. 243/2007, lastly changed through BGBl. I Nr. 51/2011), BGBl. II Nr. 186/2015, BGBl. II Nr. 288/2017 amended by BGBl. II Nr. 254/2018.

Greece - PWHSE - Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, (latest amendment 82/2018) and Occupation Exposure Limits - Protection of workers' health and safety from exposure to certain carcinogenic and mutagenic chemical substances (latest amendment 26/2020), and Presidential Decree 212/2006 - Protection of workers that are exposed to asbestos.

Hungary - Decree 05/2020 - 5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers from the risks related to chemical agents

Ireland - 2020 COP - 2020 Code of Practice for the Chemical Agents Regulations, Schedule 1

Italy - Decree 81 - Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Article 1, Law 123 of August 3, 2007, Legislative Decree 81 of April 9, 2008, Last amended: January 2020

Austria - BLV BGBl. II Nr. 254/2018 - Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, Lastly changed through BGBl. II Nr. 254/2018

Belgium - Royal Decree 21/01/2020 - Royal decree amending title 1 relating to chemical agents in Book VI of the code of well-being at work, with regard to the list of limit values of exposure to chemical agents and title 2 relating to carcinogens, mutagens and reprotoxics of Book VI of the code of well-being at work (1)

Bulgaria - Reg. No. 13/10 -
Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work Labor Code, Annex No.1 Limit values of chemical agents in the air of the working environment, and Annex № 2 Biological limit values of chemical agents and their metabolites (bio markers of exposure) or bio markers of effect Amended by: 71/2006, 67/2007, 2/2012, 46/2015, 73/2018, 5/2020), and Regulation No.10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens and Mutagens at Work Annex No.1 Occupational Exposure Limits, Amended by: 8/2004, 46/2015, 5/2020

Croatia - OG No. 91/2018 - Regulation on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values. Official Gazette No. 91 of October 12, 2018

Cyprus - KDP 16/2019 - Government of Cyprus Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances) Article 38, As amended by Regulation 16/2019 and Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended by Regulation 493/2004 - Safety and Health in the Working Environment (Chemical Substances - Carcinogens) AND Law 47(I) 2000 - Occupational Health and Safety (Asbestos), as amended by Decree 316/2006.

Czech Republic - Reg. 41/2020 - Regulation 41/2020 amending Regulation 361/2007 of Coll. establishing Occupation Exposure Limits as amended

Czech Republic - Decree No. 107/2013 - Decree No. 107/2013 Coll., amending Decree No. 432/2003 Coll., laying down the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests, collection of biological material conditions for the implementation of biological exposure tests and requirements for reporting work with asbestos and biological agents

Denmark - BEK No. 698 of 28/05/2020 - Order on Limit Values for Substances and Materials, The Statutory Order No. 507 of May 17, 2011, Appendix 1 - Limits for air pollution, etc. and Appendix 3 - Biological Exposure Values, Amended by: No. 986 of October 11, 2012, No. 655 of May 31, 2018, No. 1458 December 13, 2019, No. 698 of May 28, 2020

Estonia - Regulation No. 105 - Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents
Government of the Republic, Regulation No. 105 of 20 March 2001, Amended 17 October 2019, and 17 January, 2020.

Finland - HTP-ARVOT 2020 - Concentrations Known to be Hazardous, 654/2020 OEL values 2020 Publications of Ministry of Social Affairs and Health 2020:24 Annexes1, 2 and 3.

France - INRS ED 984 - Occupational Exposure Limit Values to Chemical Agents in France Published 2016 by the INRS National Institute of Research and Safety Health and safety of work, revised, updated by: Decree 2016-344, JORF No 0119, and Decree 2019-1487.

France - Decree 2009-1570 - Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces.

Germany - TRGS 900 - Occupational Exposure Limits, Technical Rules for Dangerous Substances, latest amendment March, 2020

Germany - TRGS 903 - Biological Threshold Limits (BGW-Values), Technical Rules for Dangerous Substances, latest amendment March, 2020

Gibraltar - LN. 2018/131 - Factories (Control of Chemical Agents at Work) Regulations 2003 LN. 2003/035, amended by LN. 2008/035, LN. 2008/050, LN. 2012/021, LN. 2015/143, LN. 2018/181.

Italy - IMDFN1 - Ministerial Decree of August 20, 1999 Final Note (1)

Latvia - Reg. No. 325 - Cabinet of Ministers Regulation No. 325 - Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces, Amended by Cabinet of Ministers Regulation No. 92, 163, 407 and No. 11.

Lithuania - HN 23:2011 - Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure Limit Values, Amended by Order V-695/A1-272.

Luxembourg - A-N 684 - Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace. Official journal of the Grand-Duke of Luxembourg, A-N°684 of 2018

Malta - MOSHAA Ch. 424 - Malta Occupational Health and Safety Authority Act: Chapter 424 as amended by: Legal Notice 353, 53, 198, and 57.

Netherlands- OWCRLV - Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XVIII, Updated from August 1, 2020.

Norway - FOR-2020-04-060695 - Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents, FOR-2011-12-06-1358, Updated by: FOR-2020-04-06-695, FOR-2020-03-23-402, FOR-2018-12-20-2186, FOR-2018-08-21-1255, FOR-2017-12-20-2353.

Poland - Dz. U. 2020 Nr. 61 - Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment Dz.U. 2018 Nr. 1286 of June 12, 2018, Annex 1 - List of values of the highest permissible chemical concentrations and dust factors harmful to health in the work environment, amended by: Dz. U. 2020 Nr. 61.

Portugal - Portuguese Norm NP 1796:2014 - Occupational exposure limits and biological exposure indices to chemical agents. Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs), Law Decree 35/2020.

Romania - Gov. Dec. No 1.218 - Governmental Decision No. 1.218 from 06/09/2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical Agents. Amended by Decision no. 157, 584, 359, and 1.

Slovakia - Gov. Decree 33/2018 - Government Decree of Slovak Republic 33/2018 on January 17, 2018 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents

Slovenia - No. 79/19 - Regulation for protection of workers against risks related to carcinogenic or mutagenic substances exposure. Annex III - Classification and binding levels of carcinogenic or mutagenic substances for occupational exposure. The Official Journal of the Republic of Slovenia, No. 101/2005. Amended by 38/15, 79/19. Regulation for protection of workers against risks related to exposure to chemical substances at the workplace. Republic of Slovenia, No. 100/2001 . Annex I - List of Binding Occupational Exposure Limit Values. Amended by 39/05, 53/07, 102/10, 38/15, 78/18, 78/19

Spain - AFS 2018:1 - NATIONAL INSTITUTE FOR HEALTH AND SAFETY AT WORK. Occupational exposure limits for chemical agents in Spain. Tables 1 and 3. Latest edition Feb. 2019

Sweden - AFS 2018:1 - Statute Book of the Swedish Work Environment Authority, AFS 2018:1
The Swedish Work Environment Authority's Ordinance and General Guidance on Hygienic Limit Values

Switzerland - OLVSNAIF - Occupational Limit Values 2020 Swiss National Accident Insurance Fund. List of Biological Limit Values (BAT-Werte) and List of MAK Values.

EU GHS SDS (2020/878)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.