

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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Temvulc Black Cement

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

1.1 Product identifier

Product Name: Temvulc Black Cement

Product code: 1082, 1082G, 1082-5G, 1082-55G

Additional information: Rev 5

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

Relevant identified uses: Rubber Adhesive

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

1.3 Details of the manufacturer/supplier of the safety data sheet

Manufacturer: Supplier:

North America European Union

Tech International Europe

200 East Coshocton Street Koeybleuken 16

Johnstown, OH 43031 2300 Turnhout, Belgium

1-740-967-9015 00 32 1442 3103 www.tech-international.com techeurope@trc4r.com

1.4 Emergency telephone number:

European Union

CHEMTREC

Brussels +(32) - 28083237

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No. 1272/2008 (CLP):

Flammable liquids, category 2

Skin irritation, category 2

Skin sensitization, category 1

Specific target organ toxicity - single exposure, category 3, central nervous system

Chronic aquatic hazard, category 2

Hazard-determining components of labeling:

Sulfur

Benzothiazole Disulfide

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Heptane

2.2 Label elements

Hazard pictograms:







Signal word: Danger

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Hazard statements:

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

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 dust/fume/gas/mist/vapors/spray.

P264 Wash skin 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.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P370+P378 In case of fire: Use agents recommended in Section 5 to extinguish.

P321 Specific treatment (see supplemental first aid instructions on this label).

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P362+P364 Take off contaminated clothing and wash it before reuse.

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor/physician if you feel unwell.

P391 Collect spillage

P403+P235 Store in a well ventilated place. Keep cool.

P405 Store locked up.

P403+P233 Store in a well ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards: None known

SECTION 3: Composition/information on ingredients

3.1 Substance: Not applicable.

3.2 Mixture:

| Identification | Name | Classification according to Regulation (EC) No. 1272/2008 (CLP) | Weight % |
|--|---|---|----------|
| CAS number: 64742-49-0 EC number: 265-151-9 REACH number: 01-2119475515-33-0015 | Hydrocarbons, C7, nalkanes, isoalkanes, cyclics | Stot SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411 Skin Irrit. 2; H315 Flam. Liq. 2; H225 | 60-90 |
| CAS number: 142-82-5 EC number: 205-563-8 | Heptane | Asp. Tox. 1; H304 Skin Irrit. 2; H315 Stot SE 3; H336 Flam. Liq. 2; H225 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | <10 |

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| | | T | 1 |
|---|---|--|------|
| CAS number: 1333-86-4 EC number: 215-609-9 | Carbon Black | Not classified | <5 |
| CAS number: 7704-34-9 EC number: 231-722-6 | Sulfur | Skin Irrit. 2; H315 | <5 |
| CAS number: 57-11-4 EC number: 200-313-4 | Stearic acid | Not classified | <5 |
| CAS number: 1344-95-2 EC number: 215-710-8 | Calcium Silicate | Eye Irrit. 2; H319 Stot SE 3; H335 | <5 |
| CAS number: 64742-65-0 EC number: 265-169-7 | Distillates, Petroleum, Solvent- Dewaxed Heavy Paraffinic | Not classified | <5 |
| CAS number: 64742-52-5 EC number: 265-155-0 REACH number: 01-2119467170-45-0055 | Hydrotreated Heavy Naphthenic Distillates | Not classified | <5 |
| CAS number: 64742-54-7 EC number: 265-157-1 | Hydrotreated Heavy Paraffinic Distillates | Not classified | <5 |
| CAS number: 64742-53-6 EC number: 265-156-6 | Hydrotreated Light Naphthenic Distillates | Not classified | <5 |
| CAS number: 120-78-5 EC number: 204-424-9 | Benzothiazole Disulfide | Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | <5 |
| CAS number: 1314-13-2 EC number: 215-222-5 REACH number: 01-2119463881-32- 0039 | Zinc oxide | Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | <5 |
| CAS number: 68476-34-6 EC number: 270-676-1 | Diesel Fuel No. 2 | Carc. 2; H351 Flam. Liq. 3; H226 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Acute Tox. 4; H332 Aquatic Chronic 2; H411 | <0.1 |

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Additional information:

According to Note L of the European Commission Directive 67/548/EEC, the classification as a carcinogen for the petroleum distillate substances in this product do not apply because it can be shown that the substances

contain less than 3% DMSO extract as measured by IP 346.

Carbon black is classified as a carcinogen only in its respirable form. Since the carbon black in this product is not respirable, the product itself is not classified as a carcinogen in the form presented.

Independent testing of Tech International products containing zinc oxide demonstrate that zinc is not appreciably leachable, and therefore does not contribute to an aquatic hazard in the finished form, or levels present in this product.

Full Text of H and EUH statements: See section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

Not determined or not available.

Following inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention

Following skin contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention

Following eye contact:

Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention

Following ingestion:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention

4.2 Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Product is highly flammable. Exposure to sources of ignition may cause physical injury

Dermal exposure may cause an allergic skin reaction. Symptoms may include irritation, redness, pain, rash, inflammation, itching, burning and dermatitis

Skin contact may result in redness, pain, burning and inflammation

Inhalation may have adverse effects on the central nervous system. Symptoms may include drowsiness, dizziness, headache, nausea and lowering of consciousness. Acute overexposure via inhalation may result in respiratory distress, confusion and unconsciousness

Delayed symptoms and effects:

Effects are dependent on exposure (dose, concentration, contact time).

4.3 Indication of any immediate medical attention and special treatment needed Specific treatment:

Skin/eye burns require immediate treatment.

Overexposure via inhalation requires urgent medical treatment.

Notes for the doctor:

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use Water (fog only), dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

Unsuitable extinguishing media:

Do not use a water stream as an extinguisher.

5.2 Special hazards arising from the substance or mixture:

Highly flammable liquid. Will be easily ignitable by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation.

5.3 Advice for firefighters

Personal protection equipment:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Evacuate non-essential personnel. Ventilate closed spaces before entering. Consider initial evacuation for 300 meters in all directions. If tank/rail car is involved in the fire, ISOLATE for 800 meters in all directions. Fight fire from a maximum distance. Move containers from fire area if you can do it without risk. Use water spray/fog for cooling fire exposed containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn. Stand by, at a safe distance, with extinguisher ready for possible re-ignition. A vapor-suppressing foam may be used to reduce vapors. Avoid unnecessary run-off of extinguishing media which may cause pollution. Do not handle damaged containers unless specialized to do so.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. All equipment used when handling the product must be grounded. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist. vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

6.2 Environmental precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. A vapor-suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

6.4 Reference to other sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating and lighting equipment. Take action to prevent static discharges.

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Handle containers with caution. Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

7.2 Conditions for safe storage, including any incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

7.3 Specific end use(s):

Refer to Section 1 (Recommended Use)

SECTION 8: Exposure controls/personal protection







8.1 Control parameters

Only those substances with limit values have been included below.

Occupational Exposure limit values:

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|--|
| Latvia | Sulfur | 7704-34-9 | 8-hour TWA: 6 mg/m ³ |
| | Heptane | 142-82-5 | 8-hour TWA: 350 mg/m ³ (85 ppm) |
| | Heptane | 142-82-5 | 15-minute STEL: 2085 mg/m ³ (500 ppm) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Mineral oil) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 0.5 mg/m ³ |
| Bulgaria | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | TWA: 5 mg/m³ (Oil - mineral, petroleum) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | TWA: 5.0 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | TWA: 5.0 mg/m³ (Oil - Mineral, petroleum) |
| | Heptane | 142-82-5 | TWA: 1600 mg/m ³ |
| | Zinc oxide | 1314-13-2 | 15-minute STEL: 10.0 mg/m ³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | TWA: 5 mg/m³ (Oil - mineral, petroleum) |
| | Zinc oxide | 1314-13-2 | TWA: 5.0 mg/m ³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | TWA: 3 mg/m ³ |
| Poland | Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | 64742-49-0 | STEL: 1500 mg/m ³ |
| | Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | 64742-49-0 | TWA: 500 mg/m ³ |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Highly refined mineral oils with the exception of cutting fluids, inhalable fraction) |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|--|
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour TWA (NDS): 5 mg/m ³ (Highly refined mineral oils with the exception of cutting fluids, inhalable fraction) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA (NDS): 5 mg/m ³ (Highly refined mineral oils with the exception of cutting fluids, Inhalable fraction) |
| | Carbon Black | 1333-86-4 | Dz.U.Poz. 817/2014, Annex 1: TWA (NDS) 4.0 mg/m³ (8 hr) |
| | Heptane | 142-82-5 | 8-hour TWA (NDS): 1200 mg/m ³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Highly refined mineral oils with the exception of cutting fluids, inhalable fraction) |
| | Heptane | 142-82-5 | 15-minute STEL (NDSCh): 2000 mg/m ³ |
| | Zinc oxide | 1314-13-2 | 8-hour TWA (NDS): 5 mg/m³ (Inhalable fraction, as Zn) |
| | Zinc oxide | 1314-13-2 | 15-minute STEL (NDSCh): 10 mg/m³ (Inhalable fraction, as Zn) |
| Lithuania | Sulfur | 7704-34-9 | 8-hour TWA: 6 mg/m ³ |
| | Stearic acid | 57-11-4 | 8-hour TWA: 5 mg/m ³ |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 1 mg/m³ (Oil mist, including smoke) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour TWA: 1 mg/m³ (Oil mist, including smoke) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 15-minute STEL: 3 mg/m³ (Oil mist, including smoke) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 15-minute STEL: 3 mg/m³ (Oil mist, including smoke) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA: 1 mg/m³ (Oil mist, including smoke) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 15-minute STEL: 3 mg/m³ (Oil mist, including smoke) |
| | Heptane | 142-82-5 | 8-hour TWA: 2085 mg/m³ (500 ppm) |
| | Heptane | 142-82-5 | 15-minute STEL: 3128 mg/m ³ (750 ppm) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 1 mg/m³ (Oil mist, including smoke) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 15-minute STEL: 3 mg/m³ (Oil mist, including smoke) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 5 mg/m ³ |
| Czech Republic | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Mineral oils, aerosol) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | Ceiling limit: 10 mg/m³ (Mineral oils, aerosol) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 200 mg/m³ (Solvent naphtha) |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|---|
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA: 5 mg/m³ (Mineral oils, aerosol) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | The ceiling limit (NPK-P): 10 mg/m³ (Mineral oils, aerosol) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA: 200 mg/m³ (Solvent naphtha) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour TWA: 5 mg/m³ (Mineral oils, aerosol) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | Ceiling limit: 1000 mg/m³ (Solvent naphtha) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | Ceiling limit (NPK-P): 10 mg/m ³ (Mineral oils, aerosol) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | Ceiling limit (NPK-P): 1000 mg/m ³ (Solvent naphtha) |
| | Carbon Black | 1333-86-4 | Government Decree 361/2007 Sb.: TWA 2.0 mg/m³ (8 hr) |
| | Heptane | 142-82-5 | 8-hour TWA: 1000 mg/m ³ |
| | Heptane | 142-82-5 | Ceiling limit (NPK-P): 2000 mg/m ³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Mineral oils, aerosol) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | Ceiling limit: 10 mg/m³ (Mineral oils, aerosol) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 200 mg/m³ (Solvent naphtha) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | Ceiling limit: 1000 mg/m³ (Solvent naphtha) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 2 mg/m³ (as Zn) |
| | Zinc oxide | 1314-13-2 | Ceiling limit (NPK-P): 5 mg/m ³ (Fumes) |
| Belgium | Stearic acid | 57-11-4 | 8-hour TWA: 10 mg/m³ (as stearates) |
| | Diesel Fuel No. 2 | 68476-34-6 | 8-hour TWA: 100 mg/m ³ |
| | Carbon Black | 1333-86-4 | Exposure Limit Value: TWA 3.5 mg/m³ (8 hr) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Mineral oils, mist) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 15-minute STEL: 10 mg/m³ (Mineral oils, mist) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA: 5 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-Hour TWA: 5 mg/m³ (Mineral oils, mist) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 15-minute STEL: 10 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 15-minute STEL: 10 mg/m³ (Mineral oils, mist) |
| | Calcium Silicate | 1344-95-2 | 8-hour TWA: 10 mg/m³ (synthetic) |
| | Heptane | 142-82-5 | 8-hour TWA: 400 ppm (1664 mg/m³) |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|---|
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Mineral oils [mist]) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 15-minute STEL: 10 mg/m³ (Mineral oils [mist]) |
| | Heptane | 142-82-5 | 15-minute STEL: 500 ppm (2085 mg/m³) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 5 mg/m³ (Fumes) |
| | Zinc oxide | 1314-13-2 | 15-minute STEL: 10 mg/m³ (Fumes) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 10 mg/m³ (Dusts) |
| Ireland | Stearic acid | 57-11-4 | 8-hour TWA: 10 mg/m³ (as stearates, except lead stearate) |
| | Diesel Fuel No. 2 | 68476-34-6 | 8-hour TWA: 100 mg/m ³ |
| | Carbon Black | 1333-86-4 | 2016 Code of Practice for Chemical Agents Regulations 2001: TWA 3.0 mg/m³ (8 hr) OEL |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Mineral oil, pure, highly and severely refined, inhalable fraction) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour OEL (TWA) is: 5 mg/m ³ (Mineral oil, pure, highly and severely refined; Inhalable fraction) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour OEL (TWA): 5 mg/m ³ (Mineral oil, pure, highly and severely refined; Inhalable fraction) |
| | Calcium Silicate | 1344-95-2 | 8-hour TWA: 1 mg/m³ (synthetic non fibrous) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Mineral oil, pure, highly and severely refined, inhalable fraction) |
| | Heptane | 142-82-5 | 8-hour OEL (TWA): 500 ppm (2085 mg/m³) |
| | Calcium Silicate | 1344-95-2 | 8-hour TWA: 0.5 mg/m3 (Synthetic non fibrous, Respirable dust) |
| Romania | Sulfur | 7704-34-9 | 15-min STEL: 6 mg/m³ (dust) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Mineral oils) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-Hour TWA: 5 mg/m³ (Mineral oils) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 15-minute STEL: 10 mg/m³ (Mineral oils) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 15-minute STEL: 10 mg/m³ (Mineral oils) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA: 5 mg/m³ (Mineral oils) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 15-minute STEL: 10 mg/m³ (Mineral oils) |

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|-----------------------|---|------------|--|
| | Heptane | 142-82-5 | 8-hour TWA: 2085 mg/m³ (500 ppm) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Mineral oils) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 15-minute STEL: 10 mg/m³ (Mineral oils) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 5 mg/m³ (Fumes) |
| | Zinc oxide | 1314-13-2 | 15-minute STEL: 10 mg/m ³ (Fumes) |
| Italy | Stearic acid | 57-11-4 | 8-hour TWA: 3 mg/m³ [Stearates (except stearates of toxic metals), Respirable fraction] |
| | Stearic acid | 57-11-4 | 8-hour TWA: 10 mg/m³ [Stearates (except stearates of toxic metals), Inhalable fraction] |
| | Calcium Silicate | 1344-95-2 | TWA: 1 mg/m ³ |
| | Carbon Black | 1333-86-4 | Legislative Decree n.81: TWA 3.0 mg/m³ (8 hr) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Mineral oil, pure, highly and severely refined, inhalable fraction) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA: 5 mg/m³ (Mineral oil, excluding metal working fluids, pure, highly and severely refined; Inhalable fraction) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour TWA: 5 mg/m³ (Mineral oil, excluding metal working fluids, pure, highly and severely refined; Inhalable fraction) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction) |
| | Heptane | 142-82-5 | 8-hour TWA: 500 ppm (2085 mg/m³) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 2 mg/m³ (Respirable fraction) |
| | Zinc oxide | 1314-13-2 | 15-minute STEL: 10 mg/m³ (Respirable fraction) |
| | Diesel Fuel No. 2 | 68476-34-6 | 8-hour TWA: 100 mg/m³ (astotal hydrocarbons, inhalable fraction and vapor) |
| Hungary | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | Ceiling limit: 5 mg/m³ (Oil smog [mineral oil]) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | Ceiling Limit (MK Value): 5 mg/m³ (Oil smog, mineral oil) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | Ceiling Limit (MK Value): 5 mg/m³ [Oil smog (mineral oil)] |
| | Heptane | 142-82-5 | 8-hour TWA (ÁK Value): 2000 mg/m³ |
| | Heptane | 142-82-5 | 60-minute STEL (CK value): 8000 mg/m³ |

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|---|
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | Ceiling limit: 5 mg/m³ (Oil smog [mineral oil]) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA (ÁK Value): 5 mg/m³ (Respirable) |
| | Zinc oxide | 1314-13-2 | 60-minute STEL (CK Value): 20 mg/m³ (Respirable) |
| Portugal | Stearic acid | 57-11-4 | 8-hour Exposure Limit: 10 mg/m³ (as stearates) |
| | Diesel Fuel No. 2 | 68476-34-6 | 8-hour TWA: 100 mg/m ³ |
| | Calcium Silicate | 1344-95-2 | TWA: 10 mg/m ³ |
| | Carbon Black | 1333-86-4 | VLE: 3.5 mg/m ³ (8 hr) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour exposure limit: 5 mg/m ³ |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | Short-term exposure limit: 10 mg/m³ |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour exposure limit: 5 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour exposure limit: 5 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | Short-term exposure limit: 10 mg/m³ |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | Short-term exposure limit: 10 mg/m³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction) |
| | Heptane | 142-82-5 | Decree-Law No. 24/2012 8-hour TWA: 500 ppm (2085 mg/m³) |
| | Heptane | 142-82-5 | NP 1796-2007 8-hour exposure limit: 400 ppm |
| | Heptane | 142-82-5 | NP 1796-2007 Short-term exposure limit: 500 ppm |
| | Zinc oxide | 1314-13-2 | 8-hour exposure limit: 2 mg/m ³ |
| | Zinc oxide | 1314-13-2 | Short-term exposure limit: 10 mg/m³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | Short-term exposure limit: 10 mg/m³ |
| Spain | Stearic acid | 57-11-4 | 8-hour daily exposure limit (VLA_ED): 10 mg/m³ [Stearates (except stearates of toxic metals)] |
| | Carbon Black | 1333-86-4 | VLA: VLA_ED 3.5 mg/m ³ (8 hr) |
| | Calcium Silicate | 1344-95-2 | TWA: 10 mg/m³ (respirable aerosol) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour daily exposure limit: 5 mg/m³ (This value is applied to refined mineral oil and not to potential additives in its formulation) |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|---|
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 15-minute STEL: 10 mg/m³ (This value is applied to refined mineral oil and not to potential additives in its formulation) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour daily exposure limit (VLA_ED): 5 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour daily exposure limit (VLA_ED): 5 mg/m³ |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 15-minute STEL (VLA-EC): 10 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 15-minute STEL (VLA-EC): 10 mg/m ³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Refined mineral oil, mist) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 15-minute STEL: 10 mg/m³ (Refined mineral oil, mist) |
| | Heptane | 142-82-5 | 8-hour daily exposure limit (VLA-ED): 500 ppm (2085 mg/m³) |
| | Zinc oxide | 1314-13-2 | 8-hour daily exposure limit (VLA_ED): 2 mg/m³ |
| | Zinc oxide | 1314-13-2 | 15-minute STEL (VLA-EC): 10 mg/m ³ |
| Croatia | Carbon Black | 1333-86-4 | Dangerous Substances Exposure Limit Values in the Workplace: 3.5 mg/m³ (8hr); 7.0 mg/m³ (15 min) |
| | Heptane | 142-82-5 | Maximum (8 hr) allowable concentration: 500 ppm (2085 mg/m³) |
| | Zinc oxide | 1314-13-2 | Maximum (8 hr) allowable concentration: 5 mg/m³ |
| | Zinc oxide | 1314-13-2 | Short-term (15 min) allowable concentration: 10 mg/m³ |
| | Calcium Silicate | 1344-95-2 | Maximum (8 hr) allowable concentration: 10 mg/m3 (Total dust) |
| | Calcium Silicate | 1344-95-2 | Maximum (8 hr) allowable concentration: 4 mg/m3 (Respirable dust) |
| Cyprus | Carbon Black | 1333-86-4 | Control of factory atmosphere and dangerous substances in factories regulation: TWA 3.5 mg/m³ (8 hr) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 5.0 mg/m³ (Fumes) |
| Sweden | Stearic acid | 57-11-4 | Level Limit Value (NGV): 5 mg/m ³ (as stearates, total dust) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | Level limit value: 1 mg/m³ (Oil mist, including oil fume) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | Short term limit value: 3 mg/m³ (Oil mist, including oil fume) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | Level Limit Value (NGV): 1 mg/m³ (Oil mist including oil fume) |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|---|
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | Level Limit Value (NGV): 1 mg/m ³ (Oil mist including oil fume) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | Short Term Limit (KTV): 3 mg/m ³ (Oil mist including oil fume) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | Short Term Limit (KTV): 3 mg/m ³ (Oil mist including oil fume) |
| | Carbon Black | 1333-86-4 | 8-hour TWA: 3 mg/m ³ |
| | Zinc oxide | 1314-13-2 | Level Limit Value (NGV): 5 mg/m³ (Total dust) |
| | Heptane | 142-82-5 | Short Term Limit (KTV): 300 ppm (1200 mg/m³) - Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1) |
| | Heptane | 142-82-5 | Level Limit Value (NGV): 200 ppm (800 mg/m³) - Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | Level Limit Value (NGV): 1 mg/m³ (Oil mist including oil fume) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | Short Term Limit (KTV): 3 mg/m³ (Oil mist including oil fume) |
| Slovakia | Carbon Black | 1333-86-4 | Regulation No. 355.2006 concerning protection of workers exposed to chemical agents, Annex 1: TWA (NPEL) 2.0 mg/m³ |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 ppm (liquid mineral oil mist, fumes) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour TWA (NPEL): 5 ppm (Liquid mineral oil mist, fumes) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 15-minute STEL: 15 ppm (Liquid mineral oil mist, fumes) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour TWA (NPEL): 1 mg/m³ (Liquid mineral oil mist, fumes) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 15-minute STEL (NPEL): 15 ppm (Liquid mineral oil mist, fumes) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA (NPEL): 5 ppm (1 mg/m³) [Liquid mineral oil mist, fumes] |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 15-minute STEL (NPEL): 3 mg/m³ (Liquid mineral oil mist, fumes) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 15-minute STEL (NPEL): 15 ppm (3 mg/m³) [Liquid mineral oil mist, fumes] |
| | Heptane | 142-82-5 | 8-hour TWA (NPEL): 500 ppm (2085 mg/m³) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 1 mg/m³ (5 ppm [Liquid mineral oil mist, fumes]) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 15-minute STEL: 3 mg/m³ (15 ppm [Liquid mineral oil mist, fumes]) |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|---|
| | Zinc oxide | 1314-13-2 | 8-hour TWA (NPEL): 1 mg/m³ [Fumes (Respirable fraction)] |
| | Zinc oxide | 1314-13-2 | 15-minute STEL (NPEL): 1 mg/m³ [Fumes (Respirable fraction)] |
| | Zinc oxide | 1314-13-2 | 8-hour TWA (NPEL): 0.1 mg/m³ [Zinc and its inorganic compounds (Respirable fraction)] |
| | Zinc oxide | 1314-13-2 | 8-hour TWA (NPEL): 2 mg/m³ [Zinc and its inorganic compounds (Inhalable fraction)] |
| Estonia | Heptane | 142-82-5 | 8-hour TWA: 500 ppm (2085 mg/m³) |
| | Calcium Silicate | 1344-95-2 | TWA: 10 mg/m ³ |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 5 mg/m ³ |
| European Union | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Severely refined mineral oils, inhalable) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-Hour TWA: 5 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-Hour TWA: 5 mg/m³ (Severely Refined Mineral Oils, inhalable) |
| | Heptane | 142-82-5 | IOEL threshold limit: 2085 mg/m ³ (500 ppm) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (SCOELs [Severely refined mineral oils, inhalable]) |
| | Heptane | 142-82-5 | SCOEL 8-hour TWA: 500 ppm (2085 mg/m³) |
| Denmark | Carbon Black | 1333-86-4 | Exposure Limits for Substances & Materials: TWA 3.5 mg/m³ |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | TWA: 1 mg/m ³ |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | TWA: 1 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | TWA: 1 mg/m ³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | TWA: 1 mg/m³ (Mineral oils) |
| | Heptane | 142-82-5 | TWA: 200 ppm (820 mg/m ³) |
| | Carbon Black | 1333-86-4 | STEL: 7 mg/m ³ |
| | Zinc oxide | 1314-13-2 | TWA: 4 mg/m ³ |
| Finland | Carbon Black | 1333-86-4 | Workplace Exposure Limits: 3.5 mg/m³ (8 hr); 7.0 mg/m³ (15 min) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour limit: 5 mg/m ³ |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour limit: 5 mg/m ³ |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour limit: 5 mg/m ³ |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Oil mist, mineral) |
| | Heptane | 142-82-5 | 8-hour limit: 300 ppm (1200 mg/m³) |
| | Heptane | 142-82-5 | 15-minute limit: 500 ppm (2100 mg/m³) |
| | Zinc oxide | 1314-13-2 | 8-hour limit: 2 mg/m ³ |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|---|------------|---|
| | Zinc oxide | 1314-13-2 | 15-minute limit: 10 mg/m ³ |
| France | Carbon Black | 1333-86-4 | Threshold Limit Values (VLEP): Time weighted average (VME) 3.5 mg/m³ |
| | Heptane | 142-82-5 | Time weighted average (VME): 400 ppm (1668 mg/m³) |
| | Heptane | 142-82-5 | Short term exposure limit: 500 ppm (2085 mg/m³) |
| | Zinc oxide | 1314-13-2 | Time weighted average (VME): 5 mg/m³ (Fumes) |
| | Zinc oxide | 1314-13-2 | Time weighted average (VME): 10 mg/m³ (Dusts) |
| Greece | Carbon Black | 1333-86-4 | Decree 307/1986: TWA 3.5mg/m ³ (8 hr); STEL 7.0 mg/m ³ (15 min) |
| | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Paraffin oi [mist]) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 8-hour TWA: 5 mg/m³ [Paraffin oil (Mist)] |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-hour TWA: 5 mg/m³ (Paraffin oil, mist) |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Paraffin oil [mist]) |
| | Heptane | 142-82-5 | 8-hour TWA:: 500 ppm (2000 mg/m³) |
| | Heptane | 142-82-5 | 15-minute STEL: 500 ppm (2000 mg/m³) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 5 mg/m³ (Fumes) |
| | Zinc oxide | 1314-13-2 | 15-minute STEL: 10 mg/m³ (Fumes) |
| | Calcium Silicate | 1344-95-2 | 8-hour TWA: 10 mg/m3 (Synthetic, Inhalable) |
| | Calcium Silicate | 1344-95-2 | 8-hour TWA: 5 mg/m3 (Synthetic, Respirable) |
| Malta | Heptane | 142-82-5 | TWA: 500 ppm (2085 mg/m ³) |
| Netherlands | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 8-hour TWA: 5 mg/m³ (Mineral oils, mist) |
| | Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 8-Hour TWA: 5 mg/m³ (Mineral oils, mist) |
| | Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | Binding 8-hour TWA: 5 mg/m ³ [Oil mist (Mineral oil)] |
| | Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 8-hour TWA: 5 mg/m³ (Oil mist [mineral oil]) |
| | Heptane | 142-82-5 | Binding 8-hour TWA: 1200 mg/m ³ |
| | Heptane | 142-82-5 | Binding STEL (15 min): 1600 mg/m ³ |
| United Kingdom | Carbon Black | 1333-86-4 | WEL: TWA 3.5 mg/m³; STEL 7.0 mg/m³ |
| | Calcium Silicate | 1344-95-2 | 8-hour TWA: 10 mg/m³ (inhalable aerosol) |

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| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|------------------|------------|--|
| | Calcium Silicate | 1344-95-2 | 8-hour TWA: 4 mg/m³ (respirable aerosol) |
| | Heptane | 142-82-5 | TWA: 500 ppm (2085 mg/m ³) |
| Slovenia | Heptane | 142-82-5 | 8-hour TWA: 2085 mg/m³ (500 ppm) |
| | Zinc oxide | 1314-13-2 | 8-hour TWA: 5 mg/m³ [Fumes (Respirable fraction)] |
| | Zinc oxide | 1314-13-2 | STEL: 20 mg/m³ [Fumes (Respirable fraction)] |
| Germany | Heptane | 142-82-5 | AGW limit value: 500 ppm (2100 mg/m³) |
| | Heptane | 142-82-5 | AGW Short term (15 min) exposure limit: 500 ppm (2100 mg/m³) |
| Luxembourg | Heptane | 142-82-5 | TWA: 500 ppm (2085 mg/m³) |
| Austria | Heptane | 142-82-5 | TWA: 2000 mg/m³ (500 ppm) |
| | Heptane | 142-82-5 | STEL: 8000 mg/m ³ (2000 ppm) |
| | Zinc oxide | 1314-13-2 | TWA: 5 mg/m ³ |

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

Not determined or not applicable.

Predicted No Effect Concentration (PNEC):

Not determined or not applicable.

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls Biological monitoring may also be appropriate for some substances

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Use explosion-proof ventilation equipment.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Always seek advice from glove suppliers.

For continuous contact we recommend nitrile gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified.

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Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Use a European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Comply with the European Standard EN149.

General hygienic measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

Environmental exposure controls:

Select controls based on a risk assessment of local conditions.

See section 6 for information on accidental release measures.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| - |
|---|
| Strong Solvent |
| Not determined or not available. |
| Not determined or not available. |
| Not determined or not available. |
| 190°F (88°C) |
| 15°F (-9°C) |
| >1 (n-BuAC=1) |
| Not determined or not available. |
| 6.7% (V) |
| 1.2% (V) |
| 119 mmHg at 20°C (68°F) |
| Not determined or not available. |
| Not determined or not available. |
| 0.74 g/cm³ (6.26 lbs./gal) at 20°C (68°F) |
| Not determined or not available. |
| 750 cps |
| Not determined or not available. |
| Not determined or not available. |
| |

9.2 Other information

| VOC | 619 g/I |
|------|---------|
| 1.00 | 017572 |

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SECTION 10: Stability and reactivity

10.1 Reactivity:

Does not react under normal conditions of use and storage.

10.2 Chemical stability:

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions:

None under normal conditions of use and storage.

10.4 Conditions to avoid:

Excess heat, ignition source or flames.

10.5 Incompatible materials:

None known.

10.6 Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

Product data: No data available.

Substance data:

| Name | Route | Result |
|-------------------------------|------------|--------------------------------------|
| Carbon Black | oral | LD50 Rat: >15,400 mg/kg |
| | dermal | LD50 Rabbit: >3000 mg/kg |
| Sulfur | dermal | LD50 Rabbit: > 2,000 mg/kg |
| Diesel Fuel No. 2 | inhalation | LC50 Rat: 3.6 mg/L (4 hr) |
| | oral | LD50 Rat: 17,900 mg/kg |
| Stearic acid | dermal | LD50 Rabbit: 5000 mg/kg |
| Distillates, Petroleum, | oral | LD50 Rat: > 5000 mg/kg |
| Solvent-Dewaxed Heavy | dermal | LD50 Rabbit: > 5000 mg/kg |
| Paraffinic | inhalation | LC50 Rat: 2.18 mg/L |
| Hydrotreated Light | dermal | LD50 Rabbit: > 5000 mg/kg |
| Naphthenic Distillates | oral | LD50 Rat: > 5000 mg/kg |
| | inhalation | LC50 Rat: 2.18 mg/L (4 hr) |
| Hydrotreated Heavy | dermal | LD50 Rabbit: > 5000 mg/kg |
| Naphthenic Distillates | oral | LD50 Rat: > 5000 mg/kg |
| Hydrotreated Heavy Paraffinic | dermal | LD50 Rabbit: >5000 mg/kg |
| Distillates | oral | LD50 Rat: >5000 mg/kg |
| | inhalation | LC50 Rat: >5 mg/L (4 hr) (mist) |
| Zinc oxide | oral | LD50 Rat: > 5000 mg/kg |
| | dermal | LD50 Rat: > 2000 mg/kg |
| | inhalation | LC50 Rat: > 5.7 mg/L (4 hr, aerosol) |
| Benzothiazole Disulfide | dermal | LD50 Rabbit: >7940 mg/kg |
| | oral | LD50 Rat: >12,000 mg/kg |

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| Name | Route | Result |
|--|------------|-------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | oral | LD50 Rat: > 5000 mg/kg |
| | dermal | LD50 Rabbit: > 2000 mg/kg |
| | inhalation | LC50 Rat: > 4.42 mg/L (4 hr, vapor) |
| Heptane | inhalation | LC50 Rat: > 29.29 mg/L (4 hr) |
| | oral | LD50 Rat: > 5000 mg/kg |
| | dermal | LD50 Rabbit: > 2000 mg/kg |

Skin corrosion/irritation

Assessment:

Causes skin irritation

Product data:No data available.

Substance data:

| Name | Result |
|--|-------------------------|
| Heptane | Causes skin irritation. |
| Diesel Fuel No. 2 | Causes skin irritation. |
| Sulfur | Causes skin irritation. |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | Causes skin irritation. |

Serious eye damage/irritation

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

Product data: No data available. Substance data:

| Name | Result |
|-------------------|--------------------------------|
| Diesel Fuel No. 2 | Causes serious eye irritation. |
| Calcium Silicate | Causes serious eye irritation. |

Respiratory or skin sensitization

Assessment:

May cause an allergic skin reaction

Product data:

No data available.

Substance data:

| Name | Result |
|-------------------------|--------------------------------------|
| Benzothiazole Disulfide | May cause an allergic skin reaction. |

Carcinogenicity

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

Product data: No data available.

Substance data:

| Name | Species | Result |
|--------------|---------|---|
| Carbon Black | | The carcinogenic classification only applies to airborne, unbound particles of respirable size. |

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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| Name | Species | Result |
|--|-----------------|--|
| Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | Not applicable. | The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346. |
| Hydrotreated Light Naphthenic Distillates | Not applicable. | The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346. |
| Hydrotreated Heavy Naphthenic Distillates | Not applicable | The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346. |
| Hydrotreated Heavy Paraffinic Distillates | Not applicable. | The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346. |
| Diesel Fuel No. 2 | Not applicable | Suspected of causing cancer. |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | Not applicable | The carcinogenic classification applies to naphtha streams containing >0.1% Benzene. |

International Agency for Research on Cancer (IARC):

| Name | Classification | |
|-------------------|--|--|
| Carbon Black | Group 2B - Possibly carcinogenic to humans | |
| Diesel Fuel No. 2 | Group 3 | |

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

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

Product data: No data available.

Substance data:

| Name | Result | |
|------|---|--|
| 1 1 | The mutagenic classification applies to naphtha streams containing >0.1% Benzene. | |

Reproductive Toxicity

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

Product data: No data available. Substance data:

| Name | Result |
|------|---|
| | The classification as a reproductive toxicant only applies when the naphtha stream contains > 3% toluene and/or n-hexane. |

Specific target organ toxicity (single exposure)

Assessment:

May cause drowsiness or dizziness

Product data:

No data available.

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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Substance data:

| Name | Result |
|--|------------------------------------|
| Calcium Silicate | May cause respiratory irritation. |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | May cause drowsiness or dizziness. |
| Heptane | May cause drowsiness or dizziness. |

Specific target organ toxicity (repeated exposure)

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

Product data:No data available.

Substance data: No data available.

Aspiration toxicity

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

Product data: No data available. Substance data:

| Name | Result |
|--|---|
| Diesel Fuel No. 2 | May be fatal if swallowed and enters airways. |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | May be fatal if swallowed and enters airways. |
| Heptane | May be fatal if swallowed and enters airways. |

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

Refer to Section 4 of this SDS.

Other information:

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute (short-term) toxicity

Assessment:

Toxic to aquatic life

Product data: No data available.

Substance data:

| Name | Result |
|--|---|
| Zinc oxide | EC50 Daphnia magna: 0.86 mg/L (48 hr) |
| | LC50 Thymallus arcticus: 0.112 mg/L (96 hr) |
| Benzothiazole Disulfide | EC50 Daphnia magna: 82 mg/L (48 hr) |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | ErC50 Selenastrum capricornutum: 3.1 mg/L (72 hr) |
| | EC50 Daphnia magna: 4.5 mg/L (48 hr) |
| Heptane | EC50 Daphnia magna: 1.5 mg/L (48 hr) |

Chronic (long-term) toxicity

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

Product data: No data available.

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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Substance data:

| Substance data. | | |
|--|---|--|
| Name | Result | |
| Diesel Fuel No. 2 | NOEC Oncorhynchus mykiss: 0.083 mg/L (14 d) | |
| | NOEC Daphnia magna: 0.2 mg/L (21 d) | |
| Benzothiazole Disulfide | NOEC Daphnia magna: 0.0001 mg/L (21 d) | |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | EC50 Daphnia magna: 10 mg/L (10 days) | |
| Heptane | NOEC Oncorhynchus mykiss: 1.28 mg/L (28 days) | |

12.2 Persistence and degradability

Product data: No data available.

Substance data:

| Name | Result |
|--|--|
| Carbon Black | The substance will not be biodegraded. |
| Diesel Fuel No. 2 | Readily biodegradable. |
| Benzothiazole Disulfide | Not readily biodegradable. |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance (UVCB). |
| Heptane | Readily biodegradable in water. |

12.3 Bioaccumulative potential

Product data: No data available.

Substance data:

| Name | Result |
|--|--|
| Carbon Black | Bioaccumulation is not expected to occur. |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance (UVCB). |
| Heptane | Calculated BCF: 552 (Not expected to bioaccumulate). |

12.4 Mobility in soil

Product data: No data available.

Substance data:

| Name | Result |
|---------|-----------------------------------|
| Heptane | Moderately Mobile (log Koc: 2.38) |

12.5 Results of PBT and vPvB assessment

PBT assessment:

| i Bi dococomoni. | |
|--|--|
| Carbon Black | This substance is not PBT. |
| Zinc oxide | PBT assessment does not apply to inorganic substances. |
| Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics | This substance is not PBT. |
| Heptane | This substance is not PBT. |

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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vPvB assessment:

| Carbon Black | This substance is not vPvB. |
|--|---|
| Zinc oxide | vPvB assessment does not apply to inorganic substances. |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | This substance is not vPvB. |
| Heptane | This substance is not vPvB. |

12.6 Other adverse effects: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Relevant information:

Consult with EU Directive 2008/98/EC for the classifications of hazardous waste prior to disposal. Furthermore, consult with your regional, national or European waste requirements or guidelines, if applicable, to ensure compliance. Final decisions on the appropriate waste management method, in line with regional, national and European legislation, remains the responsibility of the waste treatment operator

SECTION 14: Transport information

International Carriage of Dangerous Goods by Road/Rail (ADR/RID)

| UN number | 1133 |
|-------------------------------|---|
| UN proper shipping name | Adhesives |
| UN transport hazard class(es) | 3 |
| Packing group | II |
| Environmental hazards | Marine Pollutant (Heptane and Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics) |
| Special precautions for user | None |

International Carriage of Dangerous Goods by Inland Waterways (ADN)

| UN number | 1133 |
|-------------------------------|--|
| UN proper shipping name | Adhesives |
| UN transport hazard class(es) | 3 |
| Packing group | II |
| Environmental hazards | Marine Pollutant (Heptane and Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics) |
| Special precautions for user | None |

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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International Maritime Dangerous Goods (IMDG)

| UN number | 1133 |
|-------------------------------|---|
| UN proper shipping name | Adhesives |
| UN transport hazard class(es) | 3 |
| Packing group | II |
| Environmental hazards | Marine Pollutant (Heptane and Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics) |
| Special precautions for user | None |

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

| UN number | 1133 |
|-------------------------------|---|
| UN proper shipping name | Adhesives |
| UN transport hazard class(es) | 3 |
| Packing group | II |
| Environmental hazards | Marine Pollutant (Heptane and Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics) |
| Special precautions for user | None |

| 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code | |
|---|------|
| Bulk Name | None |
| Ship type | None |
| Pollution category | None |

SECTION 15: Regulatory information

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

European regulations

Inventory listing (EINECS):

| 7704-34-9 | Sulfur | Listed |
|------------|--|--------|
| 1333-86-4 | Carbon Black | Listed |
| 68476-34-6 | Diesel Fuel No. 2 | Listed |
| 57-11-4 | Stearic acid | Listed |
| 1344-95-2 | Calcium Silicate | Listed |
| 64742-65-0 | Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | Listed |
| 64742-53-6 | Hydrotreated Light Naphthenic Distillates | Listed |
| 64742-52-5 | Hydrotreated Heavy Naphthenic Distillates | Listed |
| 64742-54-7 | Hydrotreated Heavy Paraffinic Distillates | Listed |
| 1314-13-2 | Zinc oxide | Listed |
| 120-78-5 | Benzothiazole Disulfide | Listed |
| 64742-49-0 | Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | Listed |
| 142-82-5 | Heptane | Listed |

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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REACH SVHC candidate list: None of the ingredients are listed. **REACH SVHC Authorizations:** None of the ingredients are listed.

REACH Restriction: None of the ingredients are listed. **Water hazard class (WGK) (Product):** Not determined.

Water hazard class (WGK) (Substance):

| Ingredient Name | CAS | Class |
|--|------------|-------------------------|
| Carbon Black | 1333-86-4 | Non-hazardous to water. |
| Diesel Fuel No. 2 | 68476-34-6 | 2 |
| Stearic acid | 57-11-4 | Non-hazardous to water. |
| Calcium Silicate | 1344-95-2 | 1 |
| Sulfur | 7704-34-9 | 1 |
| Distillates, Petroleum, Solvent-Dewaxed Heavy Paraffinic | 64742-65-0 | 1 |
| Hydrotreated Light Naphthenic Distillates | 64742-53-6 | 1 |
| Hydrotreated Heavy Naphthenic Distillates | 64742-52-5 | 1 |
| Hydrotreated Heavy Paraffinic Distillates | 64742-54-7 | 1 |
| Zinc oxide | 1314-13-2 | 2 |
| Benzothiazole Disulfide | 120-78-5 | 2 |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | 64742-49-0 | 2 |
| Heptane | 142-82-5 | 2 |

Other regulations

Germany TA Luft: Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics: Class I; Mass flow: 0.1 kg/hr; Maximum Concentration Allowed if Emissions Exceed Base Rate: 20 mg/m³

Germany MAK: Distillates (petroleum), hydrotreated light naphthenic: 8-hour TWA: 5 mg/m³ (Mineral oils, highly refined), Distillates (petroleum), hydrotreated heavy paraffinic: 8-hour TWA: 5 mg/m³, Heptane: 8-hour TWA: 500 ppm (2100 mg/m³), Zinc oxide: 8-hour TWA: 0.1 mg/m³ [Zinc and its inorganic compounds (respirable fraction)], Zinc oxide: 8-hour TWA: 2 mg/m³ [Zinc and its inorganic compounds (inhalable fraction)]

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Indication of changes:

September 3, 2020: Reviewed/Updated to comply with the 12th and 14th Adaptation to Technical Progress (ATP) of the CLP Regulation. Composition update, resulting in updated occupational exposure limits

Abbreviations and Acronyms: None

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and (EC) No. 1907/2006 (REACH)

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Classification procedure:

| Classification according to Regulation (EC) No. 1272/2008 (CLP) | Method Used |
|--|--------------------|
| Flammable liquids, category 2 | Calculation method |
| Skin irritation, category 2 | Calculation method |
| Skin sensitization, category 1 | Calculation method |
| Specific target organ toxicity - single exposure, category 3, central nervous system | Calculation method |
| Chronic aquatic hazard, category 2 | Calculation method |

Summary of classification(s) in section 3:

| Stot SE 3; H336 | Specific target organ toxicity - single exposure, category 3, central nervous system |
|-------------------------|--|
| Asp. Tox. 1; H304 | Aspiration hazard, category 1 |
| Aquatic Chronic 2; H411 | Chronic aquatic hazard, category 2 |
| Skin Irrit. 2; H315 | Skin irritation, category 2 |
| Flam. Liq. 2; H225 | Flammable liquids, category 2 |
| Aquatic Acute 1; H400 | Acute aquatic hazard, category 1 |
| Aquatic Chronic 1; H410 | Chronic aquatic hazard, category 1 |
| Eye Irrit. 2; H319 | Eye irritation, category 2A |
| Stot SE 3; H335 | Specific target organ toxicity - single exposure, category 3, respiratory irritation |
| Skin Sens. 1; H317 | Skin sensitization, category 1 |
| Carc. 2; H351 | Carcinogenicity, category 2 |
| Flam. Liq. 3; H226 | Flammable liquids, category 3 |
| Acute Tox. 4; H332 | Acute toxicity (inhalation), category 4 |

Summary of hazard statements in section 3:

| H336 | May cause drowsiness or dizziness |
|------|--|
| H304 | May be fatal if swallowed and enters airways |
| H411 | Toxic to aquatic life with long lasting effects |
| H315 | Causes skin irritation |
| H225 | Highly flammable liquid and vapour |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H317 | May cause an allergic skin reaction |
| H351 | Suspected of causing cancer |
| H226 | Flammable liquid and vapour |
| H332 | Harmful if inhaled |
| | |

Disclaimer:

This product has been classified in accordance with EC No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and EC No. 1907/2006 (REACH). The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation, and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

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End of Safety Data Sheet