



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 and The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 No. 720

Issuing Date 24-Jul-2023

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Revision Number 1

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

1.1. Product identifier

Product Code(s) VP-1
Product Name VP-1
Synonyms VP-1 PATCH KIT
Pure substance/mixture Mixture

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

Recommended use Patching butyl rubber bicycle inner tubes
Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Importer Madison 74 Alston Drive, Bradwell Abbey Milton Keynes, MK13 9HA, UK 01908 326039 ext. 6039	Supplier Park Tool Company 5115 Hadley Avenue N St Paul, MN 55128 +1 651-777-6868
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For further information, please contact

E-mail address customercare@madison.co.uk

1.4. Emergency telephone number

Emergency telephone CHEMTREC UK +(44)-870-8200418

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids	Category 2 - (H225)
Skin corrosion/irritation	Category 2 - (H315)
Specific target organ toxicity — single exposure	Category 3 - (H336)
Category 3 Narcotic effects	
Aspiration hazard	Category 1 - (H304)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

Contains Solvent naphtha (petroleum), light aliphatic, n-Heptane, Octane

**Signal word**

Danger

Hazard statements

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H336 - May cause drowsiness or dizziness.

H225 - Highly flammable liquid and vapour.

H410 - Very 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.

P273 - Avoid release to the environment.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P370 + P378 - In case of fire: Use foam, alcohol-resistant foam, gaseous extinguishing agents, carbon dioxide (CO₂), dry powder or ABC powder to extinguish.

P391 - Collect spillage.

Additional information

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

May be harmful in contact with skin.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Solvent naphtha (petroleum), light aliphatic 64742-89-8	60-100	(649-267-00-0) 265-192-2	-	Muta. 1B (H340) (*P) Carc. 1B (H350) (*P) Asp. Tox. 1 (H304)	-	-	-
n-Heptane 142-82-5	10-30	(601-008-00-2) 205-563-8	-	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3	-	-	-

				(H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)			
Octane 111-65-9	7-13	(601-009-00-8) 203-892-1	-	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-

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

Additional information

Note P (*P): The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 % w/w benzene (EINECS No 200-753-7). This note applies only to certain complex coal- and oil-derived substances in Part 3

This product does not contain candidate substances of very high concern at a concentration \geq 0.1% (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical attention. Delayed pulmonary edema may occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

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

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Effects of Exposure	No information available.

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

Note to doctors	Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	Carbon dioxide (CO ₂). Alcohol resistant foam. Gaseous extinguishing agents. Dry powder. ABC-powder. Foam.
Unsuitable extinguishing media	Water spray. High volume water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	May emit toxic fumes under fire conditions. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Hazardous combustion products	Carbon monoxide, Carbon dioxide (CO ₂).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Deny entry to unauthorized and unprotected personnel. Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Avoid release to the environment. Do not allow material to contaminate ground water system.
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6.3. Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Use non-sparking tools. Dispose of contaminated material as waste according to Section 13.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
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SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling	Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials. Store away from incompatible materials. See section 10 for more information.
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7.3. Specific end use(s)

Specific use(s)	The identified uses for this product are detailed in Section 1.2.
Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical name	United Kingdom
n-Heptane	TWA: 500 ppm

142-82-5	TWA: 2085 mg/m ³ STEL: 1500 ppm STEL: 6255 mg/m ³
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Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Solvent naphtha (petroleum), light aliphatic 64742-89-8			1.9 mg/m ³ [4] [6] 1286.4 mg/m ³ [4] [7] 837.5 mg/m ³ [5] [6] 1066.67 mg/m ³ [5] [7]
n-Heptane 142-82-5		300 mg/kg bw/day [4] [6]	2085 mg/m ³ [4] [6]
Octane 111-65-9		773 mg/kg bw/day [4] [6]	2035 mg/m ³ [4] [6]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Solvent naphtha (petroleum), light aliphatic 64742-89-8			0.41 mg/m ³ [4] [6] 1152 mg/m ³ [4] [7] 178.57 mg/m ³ [5] [6] 640 mg/m ³ [5] [7]
n-Heptane 142-82-5	149 mg/kg bw/day [4] [6]		447 mg/m ³ [4] [6]
Octane 111-65-9	699 mg/kg bw/day [4] [6]		608 mg/m ³ [4] [6]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Octane 111-65-9	10 µg/L	40 µg/L	10 µg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Octane 111-65-9	4 mg/kg sediment dw	4 mg/kg sediment dw	160 µg/L	1.6 mg/kg soil dw	

8.2. Exposure controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles. Eye protection must conform to standard EN 166.

Hand protection

Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

Environmental exposure controls

Avoid release to the environment. Do not allow material to contaminate ground water system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid
Colour	Amber
Odour	Solvent-like
Odour threshold	No information available

Property

Property	Values	Remarks • Method
Melting point / freezing point		No data available
Initial boiling point and boiling range	90 °C	
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point	-9 °C	
Autoignition temperature		No data available
Decomposition temperature		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available

Dynamic viscosity		No data available
Water solubility	Immiscible in water	
Solubility(ies)		No data available
Partition coefficient		No data available
Vapour pressure		No data available
Relative density		No data available
Bulk density		No data available
Liquid Density		No data available
Relative vapour density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available
Explosive properties	No information available.	
Oxidising properties	No information available.	

9.2. Other information

VOC No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.

Hazardous polymerisation Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Incompatible materials.

10.5. Incompatible materials

Incompatible materials Oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition can lead to release of irritating gases and vapours, Carbon monoxide, Carbon dioxide (CO₂), Hydrocarbons.

SECTION 11: Toxicological information

11.1. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness. May be harmful if inhaled.
Eye contact	Specific test data for the substance or mixture is not available. May cause irritation.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). Repeated exposure may cause skin dryness or cracking.
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (dermal) > 2,000 mg/kg

Oral LD50 > 5,000 mg/kg (rat)

Inhalation LC50 103 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Solvent naphtha (petroleum), light aliphatic	-	= 3000 mg/kg (Rabbit)	-
n-Heptane	-	= 3000 mg/kg (Rabbit)	> 73.5 mg/L (Rat) 4 h
Octane	-	-	> 24.88 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

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

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity NOTE: As per Nota P, the mutagen classification does NOT apply to this preparation because the producer declares that substance contains less than 0.1% w/w benzene.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	United Kingdom
Solvent naphtha (petroleum), light aliphatic	Muta. 1B

Carcinogenicity NOTE: As per Nota P, the carcinogen classification does NOT apply to this preparation

because the producer declares that the substance contains less than 0.1% w/w benzene.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	United Kingdom
Solvent naphtha (petroleum), light aliphatic	Carc. 1B

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

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard May be fatal if swallowed and enters airways.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Solvent naphtha (petroleum), light aliphatic	EC50: =4700mg/L (72h, Pseudokirchneriella subcapitata)	-	-	-
n-Heptane	-	LC50: =375.0mg/L (96h, Cichlid fish)	-	-
Octane	-	-	-	EC50: =0.38mg/L (48h, water flea)

12.2. Persistence and degradability

Persistence and degradability Partly biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation Not expected to bioaccumulate.

Component Information

Chemical name	Partition coefficient
n-Heptane	4.66
Octane	5.18

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Solvent naphtha (petroleum), light aliphatic	The substance is not PBT / vPvB

n-Heptane	The substance is not PBT / vPvB
Octane	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information**IMDG**

14.1 UN number or ID number	UN1133
14.2 UN proper shipping name	ADHESIVES (n-Heptane), Marine pollutant
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1133, ADHESIVES (n-Heptane), 3, II, (-9°C C.C.), Marine pollutant
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	None
EmS-No.	F-E, S-D
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number	UN1133
14.2 UN proper shipping name	ADHESIVES, Environmentally Hazardous
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1133, ADHESIVES, 3, II, Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	None
Classification code	F1

ADR

14.1 UN number or ID number	1133
14.2 UN proper shipping name	ADHESIVES, Environmentally Hazardous
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	1133, ADHESIVES, 3, II, Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	640C
Classification code	F1
Tunnel restriction code	(D/E)

IATA

14.1 UN number or ID number	UN1133
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14.2 UN proper shipping name	Adhesives
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1133, Adhesives, 3, II
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	A3
Note:	None

SECTION 15: Regulatory information

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

National regulations

Authorisations and/or restrictions on use:

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Solvent naphtha (petroleum), light aliphatic - 64742-89-8	Use restricted. See item 28. Use restricted. See item 29. Restricted Carcinogen 1B Restricted Mutagen 1B	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

Named dangerous substances per COMAH Regulations 2015 (as amended)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Solvent naphtha (petroleum), light aliphatic - 64742-89-8	-	25000

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report

No information available

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H225 - Highly flammable liquid and vapour
 H304 - May be fatal if swallowed and enters airways
 H315 - Causes skin irritation
 H336 - May cause drowsiness or dizziness
 H340 - May cause genetic defects
 H350 - May cause cancer
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers	SCBA	Self-contained breathing apparatus

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGl(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Issuing Date 24-Jul-2023

Revision Date 24-Jul-2023

Revision Note Initial Release

This material safety data sheet complies with the requirements of UK REACH

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release 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 or in any process, unless specified in the text

End of Safety Data Sheet