



# 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

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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)** PPL  
**Product Name** Park Tool Company PPL-1 / PPL-2 PolyLube 1000 Lubricant  
**Synonyms** PPL-1 / PPL-2  
**Pure substance/mixture** Mixture

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

**Recommended use** Lubrication on bicycles  
**Uses advised against** None known

### 1.3. Details of the supplier of the safety data sheet

<b>Importer</b> Madison 74 Alston Drive, Bradwell Abbey Milton Keynes, MK13 9HA, UK 01908 326039 ext. 6039	<b>Supplier</b> 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](mailto: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

<b>Chronic aquatic toxicity</b>	Category 3 - (H412)
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### 2.2. Label elements

#### Hazard statements

H412 - Harmful to aquatic life with long lasting effects.  
EUH208 - Contains N-1-naphthylaniline. May produce an allergic reaction.

#### Precautionary statements

P273 - Avoid release to the environment.  
P501 - Dispose of contents/ container to an approved waste disposal plant.

**2.3. Other hazards**

Harmful to aquatic life.

**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)
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5	30-60	(649-465-00-7) 265-155-0	-	Carc. 1B (H350) (*L)	-	-	-
Residual oils (petroleum), solvent refined 64742-01-4	10-30	(649-459-00-4) 265-101-6	-	Carc. 1B (H350) (*L)	-	-	-
Limestone 1317-65-3	5-10	215-279-6	-	[C]	-	-	-
Urea, N,n`-(methylenedi-4, 1-phenylene)bis[N`-cyclohexyl-58890-25-8	3-7	(616-094-00-7) 406-370-3	-	Aquatic Chronic 4 (H413)	-	-	-
Diphenyl methanebis(stearylurea) 43136-14-7	3-7	(616-095-00-2) 406-690-3	-	Aquatic Chronic 4 (H413)	-	-	-
Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4	1-5	(649-454-00-7) 265-090-8	-	Carc. 1B (H350) (*L)	-	-	-
N-1-naphthylaniline 90-30-2	0.1-<1	201-983-0	-	-	-	-	-

*Classification according to GB CLP (SI 2020/1567 as amended)**[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring***Full text of H- and EUH-phrases: see section 16****Additional information**

Note L (\*L): The supplier declares that it can be shown that the substance(s) contain less than 3% DMSO extract as measured by IP 346

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

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention if symptoms occur.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if symptoms occur.
<b>Skin contact</b>	Wash skin with soap and water. Take off contaminated clothing and wash it before reuse. Get medical attention if symptoms occur.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Have victim sip a glass of water if able to swallow. If vomiting occurs, lean victim forward to reduce the risk of aspiration. Get medical attention if symptoms occur.

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

<b>Symptoms</b>	None known.
<b>Effects of Exposure</b>	None known.

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

<b>Note to doctors</b>	Treat symptomatically.
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### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	None known based on information supplied.

#### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	None known based on information supplied.
<b>Hazardous combustion products</b>	Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ), Metal oxides.

#### 5.3. Advice for firefighters

<b>Special protective equipment and precautions for fire-fighters</b>	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

<b>Personal precautions</b>	Deny entry to unauthorized and unprotected personnel. Do not touch or walk through spilled material. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

**Environmental precautions** Keep out of drains, sewers, ditches and waterways. Prevent further leakage or spillage if safe to do so. Do not allow to enter into soil/subsoil.

**6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Wipe up with absorbent material (eg. cloth, fleece). Keep in suitable, closed containers for disposal. Dispose of via a licensed waste disposal contractor.

**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.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection equipment. Do not ingest. If swallowed then seek immediate medical assistance. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Empty containers may contain hazardous residues.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling. Wash hands before eating, drinking or smoking.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep/store only in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct sunlight. Keep away from Incompatible materials. Keep away from food, drink and animal feedingstuffs. Keep in properly labelled containers. Keep container upright. Store in accordance with local regulations.

**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
Limestone 1317-65-3	TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup>

**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
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5		0.97 mg/kg bw/day [4] [6]	2.73 mg/m <sup>3</sup> [4] [6] 5.58 mg/m <sup>3</sup> [5] [6]
Residual oils (petroleum), solvent refined 64742-01-4		0.97 mg/kg bw/day [4] [6]	2.73 mg/m <sup>3</sup> [4] [6] 5.58 mg/m <sup>3</sup> [5] [6]
Calcium carbonate 471-34-1			6.36 mg/m <sup>3</sup> [5] [6]
Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4		0.97 mg/kg bw/day [4] [6]	2.73 mg/m <sup>3</sup> [4] [6] 5.58 mg/m <sup>3</sup> [5] [6]
N-1-naphthylaniline 90-30-2		0.05 mg/kg bw/day [4] [6] 6.67 mg/kg bw/day [4] [7]	0.18 mg/m <sup>3</sup> [4] [6] 44 mg/m <sup>3</sup> [4] [7]

**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
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5	0.74 mg/kg bw/day [4] [6]		1.19 mg/m <sup>3</sup> [5] [6]
Residual oils (petroleum), solvent refined 64742-01-4	0.74 mg/kg bw/day [4] [6]		1.19 mg/m <sup>3</sup> [5] [6]
Calcium carbonate 471-34-1	6.1 mg/kg bw/day [4] [6] 6.1 mg/kg bw/day [4] [7]		1.06 mg/m <sup>3</sup> [5] [6]
Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4	0.74 mg/kg bw/day [4] [6]		1.19 mg/m <sup>3</sup> [5] [6]
N-1-naphthylaniline 90-30-2	0.03 mg/kg bw/day [4] [6] 8 mg/kg bw/day [4] [7]	3.33 mg/kg bw/day [4] [6] 3.33 mg/kg bw/day [4] [7]	0.044 mg/m <sup>3</sup> [4] [6] 33 mg/m <sup>3</sup> [4] [7]

**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
Urea, N,n`-(methylenedi-4,1-phe nylene)bis[N`-cyclohexyl- 58890-25-8	0.05 µg/L	0.5 µg/L	0.005 µg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5					9.33 mg/kg food
Residual oils (petroleum), solvent refined 64742-01-4					9.33 mg/kg food
Calcium carbonate 471-34-1			100 mg/L		
Urea, N,n`-(methylenedi-4,1-phe nylene)bis[N`- cyclohexyl- 58890-25-8	0.14 mg/kg sediment dw	0.014 mg/kg sediment dw	10 mg/L	0.027 mg/kg soil dw	
Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4					9.33 mg/kg food

## 8.2. Exposure controls

### Engineering controls

Showers  
Eyewash stations  
Ventilation systems.

### Personal protective equipment

#### Eyeface protection

If there is a risk of contact: Tight sealing safety goggles. Eye protection must conform to standard EN 166.

#### Hand protection

Chemical resistant 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.

#### Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling. Wash hands before eating, drinking or smoking.

#### Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	Dark green, Grease
Physical state	Solid
Colour	Dark green
Odour	Mild, Petroleum oil

Odour threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
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		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity	> 20.5 cSt	@ 40 °C
Dynamic viscosity		No data available
Water solubility		No data available
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 None.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

### 10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

### 10.5. Incompatible materials

**Incompatible materials** None known based on information supplied.

#### 10.6. Hazardous decomposition products

**Hazardous decomposition products** None under normal use conditions.

### **SECTION 11: Toxicological information**

#### 11.1. Toxicological information

##### Information on likely routes of exposure

##### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. Inhalation of vapours in high concentration may cause irritation of respiratory system.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Contact with eyes may cause irritation.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. May cause irritation. May cause sensitisation in susceptible persons.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

##### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** None known.

##### Acute toxicity

##### Numerical measures of toxicity

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

##### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Distillates (petroleum), hydrotreated heavy naphthenic	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	-
Residual oils (petroleum), solvent refined	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	= 2.18 mg/L ( Rat ) 4 h
Urea, N,n`-(methylenedi-4,1-phenylene)bis[N`-cyclohexyl-	-	> 2000 mg/kg ( Rat )	-
Petroleum distillates, solvent-refined heavy paraffinic	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 5530 mg/m <sup>3</sup> ( Rat ) 4 h
N-1-naphthylaniline	= 1625 mg/kg ( Rat )	> 8000 mg/kg ( Rabbit )	-

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

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

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

**Carcinogenicity** The supplier declares that it can be shown that the substance(s) contain less than 3% DMSO extract as measured by IP 346.

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

Chemical name	United Kingdom
Distillates (petroleum), hydrotreated heavy naphthenic	Carc. 1B
Residual oils (petroleum), solvent refined	Carc. 1B
Petroleum distillates, solvent-refined heavy paraffinic	Carc. 1B

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

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

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

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

**Other adverse effects** No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Distillates (petroleum), hydrotreated heavy naphthenic	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Residual oils (petroleum), solvent refined	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Urea, N,n`-(methylenedi-4,1-p henylene)bis[N`-cyclohexyl-	-	LC50: >100mg/L (96h, Danio rerio)	-	-
Petroleum distillates, solvent-refined heavy paraffinic	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
N-1-naphthylaniline	-	LC50: =0.44mg/L (96h, Oncorhynchus mykiss)	-	-

### 12.2. Persistence and degradability

**Persistence and degradability** No information available.

### 12.3. Bioaccumulative potential

**Bioaccumulation****Component Information**

Chemical name	Partition coefficient
Urea, N,n``-(methylenedi-4,1-phenylene)bis[N` - cyclohexyl-	5
Diphenyl methanebis(stearylurea)	21
N-1-naphthylaniline	4.28

**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
Distillates (petroleum), hydrotreated heavy naphthenic	The substance is not PBT / vPvB
Residual oils (petroleum), solvent refined	The substance is not PBT / vPvB
Urea, N,n``-(methylenedi-4,1-phenylene)bis[N` - cyclohexyl-	The substance is not PBT / vPvB
Diphenyl methanebis(stearylurea)	The substance is not PBT / vPvB
Petroleum distillates, solvent-refined heavy paraffinic	The substance is not PBT / vPvB
N-1-naphthylaniline	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**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Contaminated packaging**

Do not reuse empty containers.

**SECTION 14: Transport information****IMDG**

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

**RID** Not regulated

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None

<b>ADR</b>	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None

<b>IATA</b>	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
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
Distillates (petroleum), hydrotreated heavy naphthenic - 64742-52-5	Use restricted. See item 28. Restricted Carcinogen 1B	-
Residual oils (petroleum), solvent refined - 64742-01-4	Use restricted. See item 28. Restricted Carcinogen 1B	-
Petroleum distillates, solvent-refined heavy paraffinic - 64741-88-4	Use restricted. See item 28. Restricted Carcinogen 1B	-

#### Persistent Organic Pollutants

Not applicable

#### Export Notification requirements

Not applicable

#### Named dangerous substances per COMAH Regulations 2015 (as amended)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Distillates (petroleum), hydrotreated heavy naphthenic - 64742-52-5	-	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**

H350 - May cause cancer

H413 - May cause long lasting harmful effects to aquatic life

**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 inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	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**