The Rubber Company

Manufacturers · Designers · Distributors

Experts in Rubber

HypaBond 5L Part A Material Safety Datasheet

Product Code: RC13101

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product name	HypaBond 5L Part A
Product substance/mixture	Mixture

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

Identified uses	Industrial use only. Adhesive applications.
Uses advised against	Consumer use; Adhesive, Paint, Aerosol, Adhesives or spray paint shall not be placed on the market containing above substance equal to or greater than 0.1% where supplied to the general public.
Reason why uses advised against	Restricted substance per REACH Annex XVII

1.3 Details of the supplier of the safety datasheet

Company name and address	The Rubber Company Limited Unit 21 Romsey Industrial Estate Greatbridge Road, Romsey, Hampshire, SO51 0HR United Kingdom
Telephone number	+44 (0) 1794 513184
Email address	sales@therubbercompany.com

1.4 Emergency telephone number

National response centre	National Poisons Information Service (Birmingham Centre) City Hospital, Dudley Road, Birmingham, United Kingdom
Emergency telephone number	+00 448 706 006 266 or NHS - 111

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Section 2: Hazardous identification

2.1 Classification of the substance or mixture

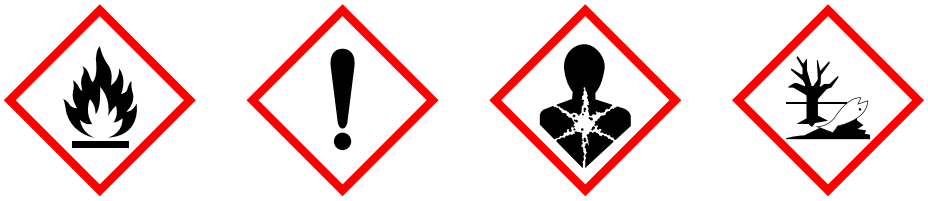
GB CLP (SI 2020/1567 as amended)

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Reproductive toxicity	Category 2 - (H361)
Specific target organ toxicity - single exposure	Category 3 - (H336)
Category 3 Narcotic effects	
Specific target organ toxicity - repeated exposure	Category 2 - (H373)
Chronic aquatic toxicity	Category 2 - (H411)
Flammable liquids	Category 2 - (H225)

2.2 Label elements

Contains Toluene; Methyl ethyl ketone; Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics; Hydrocarbons, C6, isoalkanes, <5% n-hexane

Hazard pictograms



GHS02 GHS07 GHS08 GHS09

Signal word	Danger
Hazard statements	H315: Causes skin irritation. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. H361d: Suspected of damaging the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. H411 - Toxic to aquatic life with long lasting effects.

EU Specific Hazard Statements	H225: Highly flammable liquid and vapour. EUH208: Contains rosin. May produce an allergic reaction
Precautionary statements - EU (§28, 1272/2008)	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260: Do not breathe mist/vapours/spray. P273: Avoid release to the environment. P280: Wear protective gloves and or eye/face protection. P302+P352: IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P391: Collect spillage. P403+P235: Store in a well-ventilated place. Keep cool. P501: Dispose of contents/container to an approved waste disposal plant.
Special provisions concerning the labelling of certain mixtures	Reserved for industrial and professional use.

2.3 Other hazards

Harmful to aquatic life. In use, may form flammable/explosive vapour-air mixture.

PBT & vPvB	This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Section 3: Composition/Information on Ingredients

3.1 Substances

None applicable.

3.2 Mixtures

Chemical Name	EC No. (EU Index No)	CAS No.	% w/w	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration No.
Toluene	203-625-9 (601-021-00-3)	108-88-3	>25 - <40	Skin Irrit. 2 (H315) Repr. 2 (H361d) STOT SE 3 (H336) STOT RE 2 (H373) Asp. Tox. 1 (H304) Aquatic Chronic 3 (H412) Flam. Liq. 2 (H225)	01-2119471310-51-XXXX
Methyl ethyl ketone	201-159-0 (606-002-00-3)	78-93-3	>25 - <40	Eye Irrit. 2 (H319) (EUH066) STOT SE 3 (H336) Flam. Liq. 2 (H225)	01-2119457290-43-XXXX
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4	RR-100219-3	10 - <20	STOT SE 3 (H336) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Aquatic Chronic 2 (H411) Flam. Liq. 2 (H225)	01-2119475515-33-XXXX
Hydrocarbons, C6, isoalkanes, <5% n-hexane	931-254-9	RR-100242-2	5 - <10	STOT SE 3 (H336) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Aquatic Chronic 2 (H411) Flam Liq. 2 (H225) (EUH066)	01-2119484651-34-XXXX
Rosin	232-475-7 (650-015-00-7)	8050-09-7	0.1- <1	Skin Sens. 1 (H317)	01-2119480418-32-XXXX
Zinc oxide	215-222-5 (030-013-00-7)	1314-13-2	0.1- <1	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119463881-32-XXXX
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	271-867-2	68610-51-5	0.1- <0.3	Aquatic Chronic 4 (H413) Repr. 2 (H361d)	01-2119496062-39-XXXX

Full text of H- and EUH-phrases: see section 16
Substances identified by a number starting "RR-" in the CAS-field are substances for which the CAS# is not adopted in EU and we use an internal numbering system to track within our SDS software.

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

Section 4: First Aid Measures

4.1 Description of first aid measures

General advice	Show this safety datasheet to the doctor in attendance.
Inhalation	Remove person to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.
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.
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. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor.
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 contact with skin, eyes or clothing.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Effects of Exposure	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Note to doctors	No information available.

Section 5: Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	No information available.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	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 oxides. Carbon monoxide. Carbon dioxide (CO2). Hydrocarbons.

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.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	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

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.

6.3 Methods and material for containment and cleaning up

Methods of 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.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4 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	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. Remove contaminated clothing and shoes. 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. Avoid contact with skin, eyes or clothing.

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.
Recommended storage temperature	Keep at temperatures between 5°C and 25°C.

7.3 Specific end use(s)

Specific use(s)	Adhesives.
Risk Management Methods (RMM)	The information required is contained in this Safety Datasheet.
Other information	Observe technical data sheet.

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

Exposure limits

Chemical Name	European Union	United Kingdom
Toluene 108-88-3	TWA: 50 ppm TWA: 192 mg/m³ *	TWA: 50 ppm TWA: 191 mg/m³ STEL: 100 ppm STEL: 384 mg/m³ Sk*
Methyl ethyl ketone 78-93-3	TWA: 200 ppm TWA: 600 mg/m³ STEL: 300 ppm STEL: 900 mg/m³	TWA: 200 ppm TWA: 600 mg/m³ STEL: 300 ppm STEL: 899 mg/m³ Sk*
Magnesium oxide (MgO) 1309-48-4	-	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³
Rosin 8050-09-7	-	TWA: 0.05 mg/m³ STEL: 0.15 mg/m³ Sen+

Chemical Name	European Union	Ireland	United Kingdom
Toluene 108-88-3	-	0.02 mg/L (blood - Toluene prior to last shift of work week) 0.03 mg/L (urine - Toluene end of shift) 0.3 mg/g Creatinine (urine -o-Cresol end of shift)	-
Methyl ethyl ketone 78-93-3	-	70 µmol/L (urin-e Buta-n2- one post shift)	70 µmol/L urine

Derived No Effect Level (DNEL) No information available.

Derived No Effect Level (DNEL)			
Toluene (108-88-3)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Worker - Long term Systemic health effects	Inhalation	192 mg/m³	-
Worker - Short term Systemic health effects	Inhalation	384 mg/m³	-
Worker - Long term Local health effects	Inhalation	192 mg/m³	-
Worker - Short term Local health effects	Inhalation	384 mg/m³	-
Worker - Long term Systemic health effect	Dermal	384 mg/kg bw/d	-

Methyl ethyl ketone (78-93-3)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Worker - Long term Systemic health effects	Inhalation	1600 mg/m³	-
Worker - Long term Systemic health effects	Dermal	1161 mg/kg bw/d	-

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (RR-100219-3)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Worker - Long term Systemic health effects	Inhalation	2085 mg/m³	-
Worker - Long term Systemic health effects	Dermal	300 mg/kg bw/d	-

Rosin (8050-09-7)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Worker - Long term Systemic health effects	Inhalation	10 mg/m³	-
Worker - Long term Systemic health effects	Dermal	2131 mg/kg bw/d	-

Zinc oxide (1314-13-2)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Worker - Long term Systemic health effects	Inhalation	5 mg/m³	-
Worker - Long term Local health effects	Inhalation	0.5 mg/m³	-
Worker - Long term Systemic health effects	Dermal	83 mg/kg bw/d	-

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Worker - Long term Systemic health effects	Inhalation	0.29 mg/m³	-
Worker - Long term Systemic health effects	Dermal	0.42 mg/kg bw/d	-

Derived No Effect Level (DNEL)			
Toluene (108-88-3)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Consumer - Long term Systemic health effects	Inhalation	56.5 mg/m³	-
Consumer - Short term Systemic health effects	Inhalation	226 mg/m³	-
Consumer - Long term Local health effects	Inhalation	56 mg/m³	-
Consumer - Short term Local health effects	Inhalation	226 mg/m³	-
Consumer - Long term Systemic health effects	Dermal	226 mg/kg bw/d	-
Consumer - Long term Systemic health effects	Oral	8.13 mg/kg bw/d	-

Methyl ethyl ketone (78-93-3)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Consumer - Long term Systemic health effects	Inhalation	106 mg/m³	-
Consumer - Long term Systemic health effects	Dermal	412 mg/kg bw/d	-
Consumer - Long term Local health effects	Oral	31 mg/kg bw/d	-

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (RR-100219-3)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Consumer - Long term Systemic health effects	Inhalation	447 mg/m³	-
Consumer - Long term Systemic health effects	Dermal	149 mg/kg bw/d	-
Consumer - Long term Local health effects	Oral	149 mg/kg bw/d	-

Rosin (8050-09-7)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Consumer - Long term Systemic health effects	Dermal	1065 mg/kg bw/d	-
Consumer - Long term Local health effects	Oral	1065 mg/kg bw/d	-

Zinc oxide (1314-13-2)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Consumer - Long term Systemic health effects	Inhalation	2.5 mg/m³	-
Consumer - Long term Systemic health effects	Dermal	83 mg/kg bw/d	-
Consumer - Long term Local health effects	Oral	0.83 mg/kg bw/d	-

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)			
Type	**Exposure route**	**Derived No Effect Level (DNEL)**	**Safety factor**
Consumer - Long term Systemic health effects	Inhalation	0.07 mg/m³	-
Consumer - Long term Systemic health effects	Dermal	0.21 mg/kg bw/d	-
Consumer - Long term Local health effects	Oral	0.04 mg/kg bw/d	-

Predicted No Effect Level (PNEC)

Predicted No Effect Concentration (PNEC)	
Toluene (108-88-3)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.68 mg/L
Marine water	0.68 mg/L
Sewage treatment plant	13.61 mg/L
Freshwater sediment	16.39 mg/kg dry weight
Marine sediment	16.39 mg/kg dry weight
Soil	2.89 mg/kg dry weight

Methyl ethyl ketone (78-93-3)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	55.8 mg/L
Marine water	55.8 mg/L
Sewage treatment plant	287.74 mg/L
Freshwater sediment	287.7 mg/L
Marine sediment	22.5 mg/L
Soil	2.89 mg/kg dry weight

Rosin (8050-09-7)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.002 mg/L
Marine water	0 mg/L
Sewage treatment plant	1000 mg/L
Freshwater sediment	0.007 mg/L
Marine sediment	0.001 mg/L
Soil	2.89 mg/kg dry weight

Zinc oxide (1314-13-2)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.0206 mg/L
Marine water	0.0061 mg/L
Freshwater sediment	235.6 mg/kg dry weight
Marine sediment	113 mg/kg dry weight
Soil	106.8 mg/kg dry weight
Micro-organisms in sewage treatment	0.1 mg/L

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.01 mg/L
Marine water	0.001 mg/L
Sewage treatment plant	100 mg/L
Freshwater sediment	426 mg/kg dry weight
Marine sediment	85.25 mg/kg dry weight
Soil	85.16 mg/kg dry weight

8.2 Exposure controls

Engineering controls

Ensure adequate ventilation, especially in confined areas. Vapours/aerosols must be exhausted directly at the point of origin.

Personal protective equipment	
Eye/face protection	Tight sealing safety goggles. Face protection shield. Eye protection must conform to standard EN 166.
Hand protection	Wear protective gloves. Gloves must conform to standard EN 374. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The breakthrough time of the gloves depends on the material and the thickness as well as the temperature. Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Skin and body protection	Antistatic footwear. Wear fire/flame resistant/retardant clothing. Suitable protective clothing.
Respiratory protection	In case of inadequate ventilation wear respiratory protection. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Recommended filter type	Organic gases and vapours filter conforming to EN 14387.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid.
Appearance	Liquid.
Colour	Off-white.
Odour	Characteristic.

Property	Values	Remarks / Method
Melting point/freezing point	No data available.	None known
Initial boiling point and boiling range	48°C	
Flammability	No data available.	Flammable liquid.
Flammability Limit in Air	-	None known.
- Upper flammability or explosive limits	No data available.	-
- Lower flammability or explosive limits	No data available.	-

Flash point	-9°C	
Auto-ignition temperature	No data available.	None known.
Decomposition temperature (°C)	-	None known.
pH	No data available.	Not applicable. Insoluble in water.
- pH (as aqueous solution)	No data available.	None known.
Kinematic viscosity	approx 50 mm²/S	@ 40°C
Dynamic viscosity	approx 2500 mPa	-
Water solubility	Immiscible in water.	-
Solubility(ies)	No data available.	None known.
Partition coefficient	No data available.	None known.
Vapour pressure	<110 kPa	None known.
Relative density	0.9	-
- Bulk Density	No data available.	-
- Density	No data available.	-
Relative vapour density	No data available.	None known.
Particle characteristics	-	-
- Particle Size	No information available.	-
- Particle Size Distribution	No information available.	-

9.2 Other information

Solid content	approx 22	-
VOC content	-	No data available.

9.2.1 Information with regards to physical hazard classes

Not applicable.

9.2.2 Other safety characteristics

No information available.

Section 10: Stability and Reactivity

10.1 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

None under normal processing.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong acids. Strong bases. Strong oxidising agents.

10.6 Hazardous decomposition products

None under normal use conditions. Stable under recommended storage conditions.

Section 11: Toxicology Information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes exposed
Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Redness. May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity
Numerical measures of toxicity
The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	>5000 mg/kg
ATEmix (dermal)	>5000 mg/kg
ATEmix (inhalation-gas)	>20000 ppm
ATEmix (inhalation-dust/mist)	>5 mg/L
ATEmix (inhalation-vapour)	>20 mg/L

Component information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Toluene	=5580 mg/kg (Rattus)	= 12000 mg/kg (Oryctolagus cuniculus)	>20 mg/L (Rattus) 4h
Methyl ethyl ketone	=2483 mg/kg (Rattus)	= 5000 mg/kg (Oryctolagus cuniculus)	=11700 ppm (Rattus) 4h
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	LD50 >5840 mg/kg Rat	LD50 >2920 mg/kg (Rattus)	LC50 >23.3 mg/L (4h) (Rat, vapour) (OECD 403)
Hydrocarbons, C6, isoalkanes, <5% n-hexane	>16750 mg/kg (Rattus)	>3350 mg/kg (Oryctolagus cuniculus) OECD 402	259354 mg/m3 (vapour) (rat OECD 403)
Rosin	>2000 mg/kg (Rattus)	> 2500 mg/kg (Oryctolagus cuniculus)	=1.5 mg/L (Rattus) 4h
Zinc oxide	>5000 mg/kg (Rattus)	LD50 >2000 mg/kg (Rattus) (OECD 402)	LC50 (4h) >5.7 mg/L
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	>5000 mg/kg (Rattus)	> 5010 mg/kg (Oryctolagus cuniculus)	>165 mg/L (Rattus) 1h

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.

Toluene (108-88-3)					
Method	Species	Exposure Route	Effective Dose	Exposure Time	Results
Regulation (EC) No. 440/2008, Annex, B.4	Rabbit	Dermal	-	-	Irritant

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Methyl ethyl ketone (78-93-3)					
Method	**Species**	**Exposure Route**	**Effective Dose**	**Exposure Time**	**Results**
OECD Test No. 405: Acute Eye Irritation/ Corrosion	Rabbit	Eye	-	-	Irritant

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

Toluene (108-88-3)			
Method	**Species**	**Exposure Route**	**Results**
Regulation (EC) No. 440/2008, Annex, B.6 (Maximisation test)	Guinea pig	-	No sensitisation responses were observed

Methyl ethyl ketone (78-93-3)			
Method	**Species**	**Exposure Route**	**Results**
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	No sensitisation responses were observed

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Toluene (108-88-3)		
Method	**Species**	**Results**
Regulation (EC) No. 440/2008, Annex, B.13/14 (Ames test)	Salmonella typhimurium	Not mutagenic
OECD Test No. 476: In vitro Mammalian Cell Gene Mutation Test	Mouse	Not mutagenic

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

Reproductive toxicity Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

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

Chemical Name	European Union
Toluene	Repr 2

Toluene (108-88-3)		
Method	**Species**	**Results**
OECD 407	in vivo	Reproductive toxicant

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)		
Method	**Species**	**Results**
-	Rabbit	NOAEL 15 mg/kg bw/d

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Toluene (108-88-3)					
Method	**Species**	**Exposure Route**	**Effective Dose**	**Exposure Time**	**Results**
Regulation (EC) No. 440/2008, Annex, B.26	Rat, male, female	Oral	-	91 days	NOAEL: 625 mg/kg
OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies	Rat, male, female	Inhalation, vapour	-	-	NOAEL: 1.131 mg/L

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

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

No information available.

11.2.2 Other information

Other adverse effects No information available.

Section 12: Ecological Information

12.1 Toxicity

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

Chemical Name	Algae/aquatic plants	Fish	Toxicity to micro-organisms	Crustacea	M-Factor	M-Factor (long-term)
Toluene 108-88-3	EC50 (72h) = 12.5 mg/L (Pseudokirchneriella subcapitata)	LC50 (96h) 5.89 - 7.81 mg/L (Oncorhynchus mykiss flow-through) LC50 (96h) = 5.8 mg/L (Oncorhynchus mykiss semi-static)	EC50 = 19.7 mg/L 30 min	EC50 =11.5 mg/L (48h, Daphnia magna) EC50: 5.46 - 9.83 mg/L (48h, Daphnia magna)	-	-
Methyl ethyl ketone 78-93-3	EC50 =1972 mg/L (Pseudokirchneriella subcapitata)	LC50 3130 - 3320 mg/L (96h, Pimephales promelas)	EC50 = 3403 mg/L 30 min EC50 = 3426 mg/L 5 min	EC50 (48h) > 308 mg/L (Daphnia magna)	-	-
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics RR-100219-3	ErL50 (72h) = 10-30 mg/L (Pseudokirchneriella subcapitata)	LL50 (96h) >13.4 mg/L (Oncorhynchus mykiss) OECD 203	-	EL50 (48h) = 3.0 mg/L (Daphnia magna)	-	-
Hydrocarbons, C6, isoalkanes, <5% n-hexane RR-100242-2	EL50 (72h) = 13.6 mg/L (Pseudokirchneriella subcapitata)	LL50 (96h) = 18.27 mg/L (Oncorhynchus mykiss)	-	EL50 (48h) = 31.9 mg/L (Daphnia magna)	-	-

Chemical Name	Algae/aquatic plants	Fish	Toxicity to micro-organisms	Crustacea	M-Factor	M-Factor (long-term)
Rosin 8050-09-7	EC50 =400 mg/L (72h, Desmodesmus subspicatus)	LC50 (96h) >10 mg/L (Danio rerio)	EC50 = 31.5 mg/L 30 min	EC50 (48h) >100 mg/L (Daphnia magna)	-	-
Zinc oxide 1314-13-2	LC 50 (72h) 0.136 mg/L	LC50 (96h) =0.7 mg/L (Danio rerio)	-	LC 50 (48h) =0.5 mg/L (Ceriodaphnia dubia)	1	1
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	EC50 >0.2 mg/L (72h, Pseudokirchneriella subcapitata	LC50 >0.2mg/L (96h, Oncorhynchus mykiss)	-	EC50 >0.2 mg/L (48h, Daphnia magna)	-	-

12.2 Persistence and degradability

No information available.

Methyl ethyl ketone (78-93-3)			
Method	**Exposure Time**	**Value**	**Results**
OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D)	28 days	Biodegradation	98% readily biodegradable

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (RR-100219-3)			
Method	**Exposure Time**	**Value**	**Results**
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)	28 days	98%	Readily biodegradable

Zinc oxide (1314-13-2)			
Method	**Exposure Time**	**Value**	**Results**
-	-	-	The methods for determining biodegradability are not applicable to inorganic substances

12.3 Bioaccumulative potential

Accumulation
Component Information

Chemical Name	Partition coefficient
Toluene	2.73
Methyl ethyl ketone	0.3
Hydrocarbons, C6, isoalkanes, <5% n-hexane	3.6
Rosin	7.7
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	7.93

12.4 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 above the threshold of declaration.

Chemical Name	PBT and vPvB assessment
Toluene	The substance is not PBT / vPvB
Methyl ethyl ketone	The substance is not PBT / vPvB
Hydrocarbons, C6, isoalkanes, <5% n-hexane	The substance is not PBT / vPvB
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	The substance is not PBT / vPvB
Hydrocarbons, C6, isoalkanes, <5% n-hexane	The substance is not PBT / vPvB
Rosin	The substance is not PBT / vPvB
Zinc oxide	The substance is not PBT / vPvB
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	The substance is not PBT / vPvB

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Waste from residues/unused products	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
European Waste Catalogue	08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances 15 01 10*: Packaging containing residues of or contaminated by dangerous substances
Other information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: Transport Information

Note: The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments made in non-bulk packages (see regulatory definition). The information shown here, may not always agree with the bill of lading shipping description for the material.

Land Transport (ADR/RID)

14.1 UN number or ID number	UN133
14.2 UN proper shipping name	Adhesives
14.3 Transport hazard classes	3
- Labels	3

14.4 Packing group	II
- Description	UN1133, Adhesives, 3, II, (D/E), Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
- Special precautions	640D
- Classification code	F1
- Tunnel restriction code	D/E
- Limited quantity (LQ	5L
- ADR hazard ID (Kemmler Number)	33

IMDG

14.1 UN number or ID number	UN133
14.2 UN proper shipping name	Adhesives
14.3 Transport hazard classes	3
14.4 Packing group	II
- Description	UN1133, Adhesives, 3, II, (-9°C c.c.), Marine pollutant
14.5 Marine pollutant	P
14.6 Special precautions for user	
- Special provisions	None
- Limited quantity (LQ)	5L
- EmS-No.	F-E, S-D
14.7 Maritime transport in bulk according to IMO instruments	
- Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable.

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number	UN133
14.2 UN proper shipping name	Adhesives
14.3 Transport hazard classes	3
14.4 Packing group	II
- Description	UN1133, Adhesives, 3, II
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
- Special provisions	A3
- Limited quantity (LQ)	1L
- ERG code	3L

Section 15: Regulatory Information

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

European Union

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.

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work.

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical Name	CAS No.	Restricted substance per REACH Annex XVII
Toluene	108-88-3	48.

48. Reserved for industrial and professional use. Adhesives or spray paint shall not be placed on the market containing above substance equal to or greater than 0.1% where supplied to the general public.

Substance subject to authorisation per REACH Annex XIV
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV).

Dangerous substance category per Seveso Directive (2012/18/EU)
P5a - FLAMMABLE LIQUIDS
P5b - FLAMMABLE LIQUIDS
P5c - FLAMMABLE LIQUIDS
E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

Persistent Organic Pollutants
Not applicable

National regulations

15.2 Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa.
No

Chemical Safety Assessment has been carried out for this mixture

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

Hazard statements

EUH066: Repeated exposure may cause skin dryness or cracking.
H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H361d: Suspected of damaging the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
H411: Toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.
H413: May cause long lasting harmful effects to aquatic life.

Legend

TWA	TWA (time-weighted average).
STEL	STEL (Short Term Exposure Limit).
Ceiling	Ceiling Limit Value.
Sk*	Skin designation.
SVHC	Substance(s) of Very High Concern.
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals.
vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals.
STOT RE	Specific target organ toxicity - Repeated exposure.
STOT SE	Specific target organ toxicity - Single exposure.
EWC	European Waste Catalogue.
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road.
IMDG	International Maritime Dangerous Goods (IMDG).
IATA	International Air Transport Association (IATA).
RID	Regulations concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data

No information available.

Prepared By	Product Safety & Regulatory Affairs
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Indication of changes	
Revision note	SDS sections updated, 8, 15.
Training Advice	Provide adequate information, instruction, and training for operator.
Further information	No information available.

This SDS complies with the requirements of UK REACH Regulations SI 2019/758 (as amended)

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