

MATERIAL SAFETY DATA SHEET

DESCRIPTION

**TREADMASTER CONTACT ADHESIVE FOR
USE WITH ANTI-SLIP DECK COVERING**



ORDER CODE

TM 230 MSDS

SECTION 1: Identification of the substance / preparation and company

1.1 Product identifier

TM230 Adhesive

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

High heat resistant contact adhesive

1.3 Details of the supplier of the safety data sheet:

Seals + Direct Ltd
Unit 6, Milton Business Centre
Wick Drive, New Milton
Hants, BH25 6RH
Tel: 01425 617722
Fax: 01425 610967
Email: sales@sealsplusdirect.co.uk

1.4 Emergency telephone number

Tel: 01425 617722 (Mon – Fri 8:30am – 5pm)

SECTION 2: Hazards Identification

2.1 Classification according to CLP

Physical hazards: Flam. Liq. 2 – H225
Health hazards: Eye Irrit. 2 – H319. STOT SE3 – H336
Environmental hazards: Aquatic Chronic 2 – H411

2.1.2 Additional information

Classification: Xi; R36/38. F; R11. N; R51/53. R67
Human health: Irritating to eyes

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Environment: The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment

Physicochemical: The product is highly flammable. Vapours may form explosive mixtures with air

The full text for all Risk phrases is displayed in Section 16

2.2 Label elements

Labelling according to CHIP:

Hazard symbols:



Signal word:

Danger

Hazard statements:

H225 Highly flammable liquid vapour
H319 Cause serious eye irritation
H336 May cause drowsiness or dizziness
H411 Toxic to aquatic life with long lasting effects
H302 Harmful if swallowed
EUH208 Contains ROSIN. May produce an allergic reaction

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P243 Take precautionary measures against static discharge
P261 Avoid breathing vapour / spray
P273 Avoid release to the environment
P403 + 233 Store in a well-ventilated place. Keep container tightly closed.

Contain:

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics < 0.1% benzene, BUTANONE, ACETONE, ETHYL ACETATE

Supplementary precautionary Statements:

P240 Ground / bond container and receiving equipment
P241 Use explosion-proof equipment
P242 Use only non-sparking tools
P264 Wash contaminated skin thoroughly after handling

- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in well-ventilated area
- P280 Wear protective gloves / protective clothing / eye protection / face protection
- P301 + 310 IF SWALLOWED: Immediately call a POISON CENTRE / doctor
- P303 + 361 IF ON SKIN (or hair): Take off immediately + 353 all contaminated clothing. Rinse skin with water / shower
- P304 + 340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P305 + 351 if in eyes: Rinse cautiously in water for + 338 several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTRE / doctor if you feel unwell
- P330 Rinse mouth
- P337 + 313 If eyes irritation persists: Get medical advice / attention
- P370 + 378 In case of fire: Use foam, carbon dioxide, dry power or water fog to extinguish
- P391 Collect spillage
- P403 + 235 Store in a well ventilated place. Keep cool
- P405 Store locked up
- P501 Dispose of contents / container in accordance with national regulations

2.3 Other hazards

PBT/vPvB

This product does not contain any substances classified as PBT or PvB

SECTION 3: Composition / information on ingredients

3.2 Mixtures

Hazardous ingredients

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CAS No.	EC No.	Index No.	REACH Registration no.	Identification name	% Weight	Classification according
	920-750-0		01-2119473851-33-XXXX	Hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclics < 0.1% benzene	30-60%	Flam. Liq. 2 - H225 STOT SE 3 - H336 Asp. Tox. 1 -H304 Aquatic Chronic 2 - H411
78-93-3	201-15-0		01-2119457290-43-XXXX	Butanone	10-30%	Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336
67-64-1	200-662-2		01-2119471330-49-XXXX	Acetone	10-30%	Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336
141-78-6	205-500-4		01-2119475103-46-XXXX	Ethyl Acetate	10-30%	Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336
8050-09-7	232-475-7			Rosin	< 1 %	Skin Sens. 1 - H317
1330-20-7	215-535-7		01-2119488216-32-XXXX	Xylene	< 1 %	Flam. Liq. 2 - H225 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336

The full text for all Hazard statements is displayed in Section 16

Composition comments: The data shown are in accordance with the latest EC Directives. Toluene content = 0.0003%

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General Information: Remove affected person from source of contamination immediately, ensuring one's own safety first. In all cases of doubt, or when symptoms persist, seek

Following inhalation:	medical attention and show safety data sheet where possible). Remove exposed person immediately from source of exposure to fresh air, ensuring one's own safety first. Keep affected person warm, at rest and in a position comfortable for breathing. Get medical attention if any irritation or discomfort continues.
Following skin contact:	Remove all contaminated clothing and footwear, launder and clean thoroughly before re-use. Wash skin thoroughly with plenty of water and soap. If any irritation develops or persists seek after washing seek medical attention.
Following eye contact:	Rinse immediately with plenty of water. Check for and remove any contact lenses if present and easy to do so. Continue to rinse for at least 15 minutes whilst opening the eye lids wide apart. If any irritation or discomfort persist after rinsing seek medical advice.
Following ingestion:	Rinse out mouth thoroughly with water and give plenty of water to drink only if affected person is fully conscious. Get medical attention if large quantity has been ingested. Show this safety data sheet to the medical personnel.
Protection of first aiders:	Keep yourself protected, assess your surroundings, be cautious of any fumes or vapours. On approach always put on your gloves. First aid personnel should wear appropriate protective equipment during any rescue. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

General information:	The severity of the symptoms described will vary dependant of the concentration and the length of exposure.
Inhalation:	Vapours may cause headache, fatigue, dizziness and nausea.
Skin contact:	Prolonged contact may cause redness, irritation and dry skin.
Eye contact:	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.
Ingestion:	May cause stomach pain or vomiting.

4.3 Inhalation of immediate medical attention and special treatment needed

Inhalation:	If you feel unwell, seek medical advice (show the label or safety data sheet where possible).
Skin contact:	Seek medical attention if irritation or symptoms persist.
Eye contact:	Seek medical attention if in doubt or if irritation or discomfort persists.
Ingestion:	If you feel unwell, or large quantity ingested seek medical advice.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing media

Suitable extinguishing media:	Fire creates: Thermal decomposition or combustion products may include the following substances: Irritating gases or vapours. Carbon Monoxide (CO). Carbon Dioxide (CO ₂). Hydrogen Chloride (HCl)
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:	Fire creates: Thermal decomposition or combustion products may include the following substances: Irritating gases or vapours. Carbon Monoxide (CO). Carbon Dioxide (CO ₂). Hydrogen Chloride (HCl)
Specific Hazards:	Heating may generate flammable vapours. This product is highly flammable. Vapours may form explosive mixtures with air. Vapours may accumulate on the floor and in low-lying areas.

5.3 Advice for Fire-fighters

Protective actions for firefighting:	Avoid breathing fire gases or vapours. Ventilate closed spaces before entering them. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Cool containers exposed to flames with water until well after the fire is out.
Special protective equipment for firefighters:	Wear chemical protective suit. Use air-supplied respirator, gloves and protective goggles.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions: Ensure suitable respiratory protection is worn during removal of spillages in confined areas. Wear suitable protective equipment, including gloves, goggles / face shield, respirator, boots, clothing or apron, as appropriate.
- For non-emergency personnel: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
- For emergency responders: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6.2 Environmental precautions

- Environmental precautions: Do not discharge into drains, water courses or onto the ground.

6.3 Methods and materials for containment and cleaning up

- Methods for cleaning up: Eliminate all sources of ignition. NO smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb the spillage with sand or other inert absorbent.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for more detailed information on health effects and symptoms. For waste disposal, see Section 13.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

- Usage precautions: Keep away from heat, sparks and open flame. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Avoid inhalation of vapours / spray and contact with skin and eyes.

Advice on general occupational hygiene:

Wash promptly with soap and water if skin becomes contaminated. Use appropriate hand lotion to prevent defatting and cracking of skin.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions: Keep away from oxidising materials, heat and flames. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage Class: Flammable Liquid Storage.

7.3 Specific end use (s)

SECTION 8: Exposure Controls / Personal Protection

8.1 Control parameters

Workplace exposure limits: WEL = Workplace Exposure Limit
SK = Can be absorbed through skin.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics <0.1% benzene.				
State	8 hour TWA		15 min. STEL	
UK (WEL)	200 ppm	1,000 mg/m ³		
BUTANONE				
State	8 hour TWA		15 min. STEL	
UK (WEL)	200 ppm (Sk)	600 mg/m ³ (Sk)	300 ppm (Sk)	899 mg/m ³ (Sk)
ETHYL ACETATE				
State	8 hour TWA		15 min. STEL	
UK (WEL)	200 ppm		400 ppm	
ACETONE				
State	8 hour TWA		15 min. STEL	
UK (WEL)	500 ppm	1210 mg/m ³	1500 ppm	3620 mg/m ³
ROSIN				
State	8 hour TWA		15 min. STEL	
UK (WEL)		0.5 mg/m ³		0.15 mg/m ³
XYLENE				
State	8 hour TWA		15 min. STEL	
UK (WEL)	50 ppm	220 mg/m ³	100 ppm	441 mg/m ³
TOLUENE				
State	8 hour TWA		15 min. STEL	

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UK (WEL)	50 ppm	191 mg/m ³	100 ppm	384 mg/m ³
ETHYLBENZENE				
State	8 hour TWA		15 min. STEL	
UK (WEL)	100 ppm	441 mg/m ³	125 ppm	552 mg/m ³
FORMALDEHYDE ...%				
State	8 hour TWA		15 min. STEL	
UK (WEL)	2 ppm	2.5 mg/m ³	2 ppm	2.5 mg/m ³

DNELs	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics <0.1% benzene.							
	Industry				Consumers			
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral								699 mg/kg
Inhalation				2035 mg/m ³				608 mg/m ³
Dermal				773 mg/kg				699 mg/kg

DNELs	BUTANONE (CAS: 78-93-3)							
	Industry				Consumers			
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral								31 mg/kg
Inhalation				600 mg/m ³				106 mg/m ³
Dermal				1161 mg/kg				412 mg/kg

PNECs		
Environmental protection target		PNEC
Fresh water	9.0 - 10.0, ISO 976	55.8 mg/l
Freshwater sediments	9.0 - 10.0, ISO 976	284.7 mg/kg
Marine water	9.0 - 10.0, ISO 976	55.8 mg/l
Marine sediments	9.0 - 10.0, ISO 976	284.7 mg/kg
STP	9.0 - 10.0, ISO 976	709 mg/l
Soil	9.0 - 10.0, ISO 976	22.5 mg/kg

DNELs	ACETONE(CAS: 67-64-1)							
	Industry				Consumers			
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral								62 mg/kg

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Inhalation	2420 mg/m3			1210 mg/m3				200 mg/m3
Dermal		186 mg/kg		186 mg/kg				62 mg/kg

PNECs		
Environmental protection target		PNEC
Fresh water	9.0 - 10.0, ISO 976	10.6 mg/l
Freshwater sediments	9.0 - 10.0, ISO 976	30.4 mg/kg
Marine water	9.0 - 10.0, ISO 976	1.06 mg/l
Marine sediments	9.0 - 10.0, ISO 976	30.4 mg/kg
STP	9.0 - 10.0, ISO 976	100 mg/l
Soil	9.0 - 10.0, ISO 976	29.5 mg/kg

DNELs	ETHYL ACETATE (CAS: 141-78-6)							
	Industry				Consumers			
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral								
Inhalation	1468 mg/m3	1486 mg/kg	734 mg/kg	734 mg/m3	734 mg/kg	734 mg/kg		367 mg/m3
Dermal				63 mg/kg				37 mg/kg

PNECs		
Environmental protection target		PNEC
Fresh water	9.0 - 10.0, ISO 976	0.26 mg/l
Freshwater sediments	9.0 - 10.0, ISO 976	1.25 mg/kg
Marine water	9.0 - 10.0, ISO 976	0.26 mg/l
Marine sediments	9.0 - 10.0, ISO 976	0.125 mg/kg
Intermittent release	9.0 - 10.0, ISO 976	1.65 mg/kg
STP	9.0 - 10.0, ISO 976	650 mg/l
Soil	9.0 - 10.0, ISO 976	0.24 mg/kg

DNELs	XYLENE (CAS: 1330-20-7)							
	Industry				Consumers			
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral								
Inhalation	289 mg/m3	289 mg/kg		77 mg/m3	174 mg/kg	174 mg/kg		14.8 mg/m3
Dermal				180 mg/kg				108 mg/kg

PNECs

Environmental protection target	PNEC
Fresh water	0.327 mg/l
Soil	2.31 mg/l

DNEFs	TOLUENE (CAS: 108-88-3)							
	Industry				Consumers			
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral								8.13 mg/kg
Inhalation	384 mg/m3	384 mg/kg	192 mg/kg	192 mg/m3	226 mg/kg	226 mg/kg		56.5 mg/m3
Dermal				384 mg/kg				

PNECs		
Environmental protection target	PNEC	
Fresh water	9.0 - 10.0, ISO 976	0.68 mg/l
Freshwater sediments	9.0 - 10.0, ISO 976	16.39 mg/kg
STP	9.0 - 10.0, ISO 976	13.61 mg/l
Soil	9.0 - 10.0, ISO 976	2.89 mg/kg

DNEFs	ETHYLBENZENE (CAS: 100-41-4)							
	Industry				Consumers			
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral								
Inhalation	293 mg/m3							
Dermal								

PNECs	
Environmental protection target	PNEC
Marine water	0.01 mg/l
Intermittent release	0.1 mg/l
Marine sediments	1.37 mg/kg

PARATERTIARYBUTYLPHENOL (CAS: 98-54-4)

PNECs	
Environmental protection target	PNEC
Fresh water	0.01 mg/l
Freshwater sediments	0.975 mg/l
Marine sediments	0.0975 mg/l
Soil	0.324 mg/kg

8.2 Exposure controls

Protective equipment:



8.2.1 Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any Occupational Exposure Limits for the product or ingredients. Use explosion-proof general and local exhaust ventilation.

8.2.2 Personal protection equipment

8.2.2.1 Eye / face protection:

Wear chemical splash goggles. Eyewear complying with an approved standard should be worn if risk assessment indicates eye contact is possible.

8.2.2.2 Skin protection:

Hand protection: Wear protective gloves made of the following material: Nitrile rubber. To protect hands from chemicals, gloves should comply with European Standard EN 374. The selected gloves should have a breakthrough time for at least 6 hours. The most suitable glove should be chosen in consultation with the glove supplier / manufacturer, who can provide information about the breakthrough time of the glove material. When used with mixtures, the protection time of gloves cannot be accurately estimated.

Other skin protection: Wear suitable protective clothing as protection against splashing or contamination.

8.2.2.3 Respiratory protection:

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3.

8.2.2.4 Thermal hazards:

Contact with hot surfaces can cause serious thermal burns.

8.2.3 Environmental exposure controls

Hygiene measures:

Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly with soap and water if skin becomes contaminated. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Amber liquid
Odour:	Organic solvents
Odour threshold:	Not determined
pH:	Not available
Melting/freezing point:	Not applicable
Initial boiling point and boiling range:	Not available
Flash point:	- 7°C CC (Closed cup)
Evaporation rate:	Not available
Flammability (solid/gas):	Not available
Upper/lower flammability or explosive limits:	Lower: 0.9 Upper: 13
Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	0.880 @ 20°C
Solubility:	Slightly soluble in water
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	5500 - 6500 cP @ 20°C
Explosive properties:	Not determined
Oxidising properties:	Not determined
Comments:	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.

9.2 Other information

Refractive Index:	Not applicable
Particle size:	Not available
Molecular weight:	Not applicable
Saturation concentration:	Not available

Critical temperature:
Volatile organic compound:

Not determined
This product contains a maximum VOC
content of 633 g/litre

SECTION 10: Stability and Reactivity

10.1 Reactivity

Reactivity:

There are no known reactivity hazards
associated with this product

10.2 Possibility of hazardous reactions

Chemical stability:

Stable at normal ambient temperatures
and when used as recommended

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions:

Not applicable

10.4 Conditions to avoid

Conditions to avoid:

Avoid heat, flames and other sources
of ignition

10.5 Incompatible materials

Materials to avoid:

No specific material or group of
materials is likely to react with the
product to produce a hazardous
situation

10.6 Hazardous decomposition products

Haz. Decomp. Products:

Fire creates: Toxic
gases/vapours/fumes of: Carbon
monoxide (CO). Carbon dioxide (CO₂).
Hydrogen chloride (HCl)

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity - oral

Notes (oral LD50)

Not determined

Acute toxicity - dermal

Notes (dermal LD₅₀)

Not determined

Acute toxicity - inhalation

Notes (inhalation LC₅₀)

Not determined

Skin corrosion / irritation

Human skin model test

Not determined

Extreme pH

Not determined

Serious eye damage / irritation

Serious eye damage / irritation

Not determined

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems

Inhalation

Vapours may cause drowsiness and dizziness

Ingestion

Harmful if swallowed

Skin contact

Irritating to skin

Eye contact

Irritating to eyes. This product is strongly irritating

Route of entry

Inhalation. Skin absorption

Toxicological information on ingredients:

HYDROCARBONS C7-C9, n-alkanes, isoalkanes, cyclics <0.1% benzene					
	Route	Species	Test	Value	Units
ORAL	Acute Toxicity	RAT	LD ₅₀	5850.0	mg/kg
DERMAL	Acute Toxicity	RAT	LD ₅₀	3000.0	mg/kg
BUTANONE (CAS: 78-93-3)					
	Route	Species	Test	Value	Units
ORAL	Acute Toxicity	RAT	LD ₅₀	2500.0	mg/kg
DERMAL	Acute Toxicity	RBT	LD ₅₀	2500.0	mg/kg
INHALATION	Acute Toxicity	RAT	LC ₅₀	5000.0	mg/l

ACETONE (CAS: 67-64-1)				
Route	Species	Test	Value	Units
ORAL Acute Toxicity	RAT	LD ₅₀	5800.0	mg/kg
DERMAL Acute Toxicity	RBT	LD ₅₀	7400.0	mg/kg
INHALATION Acute Toxicity	RAT	LC ₅₀	76.0	mg/l
ETHYL ACETATE (CAS: 141-78-6)				
Route	Species	Test	Value	Units
ORAL Acute Toxicity	MSE	LD ₅₀	4100.0	mg/kg
DERMAL Acute Toxicity	RBT	LD ₅₀	2005.0	mg/kg
INHALATION Acute Toxicity	RAT	LC ₅₀	30.0	mg/l
Notes (Inhalation LC ₅₀) 9.0 -10.0, ISO 976				
SKIN SENSITISATION	Guinea pig maximization test (GPMT)		Negative	
REPRODUCTIVE TOXICITY				
FERTILITY	RAT Inhalation	NOAEL	16000	ppm
DEVELOPMENT	RAT Inhalation	NOAEL	20000	ppm
Specific target organ toxicity - repeated exposure				
STOT - Repeated exposure	Conclusive data but not sufficient for classification.			
ROSIN				
Route	Species	Test	Value	Units
ORAL Acute Toxicity	RAT	LD ₅₀	7800.0	mg/kg
DERMAL Acute Toxicity	RBT	LD ₅₀	2505.0	mg/kg
XYLENE (CAS: 1330-20-7)				
Route	Species	Test	Value	Units
ORAL Acute Toxicity	RAT	LD ₅₀	2050.0	mg/kg
DERMAL Acute Toxicity	RBT	LD ₅₀	2700.0	mg/kg
INHALATION Acute Toxicity	RAT	LD ₅₀	10.0	mg/l
PARATERTIARYBUTYLPHENOL (CAS: 98-54-4)				
Acute toxicity	Species	Test	Value	Units
ORAL Acute Toxicity	RAT	LD ₅₀	5660.0	mg/kg
DERMAL Acute Toxicity	RBT	LD ₅₀	4100.0	mg/kg

SECTION 12: Ecological Information

12.1 Toxicity

Ecotoxicity values:

Dangerous for the environment if discharged into watercourses. The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Acute toxicity:

Fish	Not determined
Aquatic invertebrates	Not determined
Aquatic plants	Not determined
Microorganisms	Not determined
Terrestrial	Not determined

Chronic toxicity:	Fish early life stage	Not determined
Short term toxicity:	Embryo and sac fry stages	Not determined
Chronic toxicity:	Aquatic invertebrates	Not determined

Ecological information on ingredients:

HYDROCARBONS C7-C9, n-alkanes, isoalkanes, cyclics <0.1% benzene				
Acute toxicity	Species	Test	Value	Units
Fish	FISH	LC ₅₀ 96H	1 - 10	mg/l
Aquatic invertebrates	Daphnia magna	EC ₅₀ 48H	10 - 100	mg/l
Microorganisms	Activated sludge	IC ₅₀	1 - 10	mg/l
BUTANONE				
Acute toxicity	Species	Test	Value	Units
Fish	Pimephales promelas (Fat-head Minnow)	LC ₅₀ 96H	2993	mg/l
	Leuciscus idus (Golden orfe)	LC ₅₀ 48H	> 100	mg/l
Aquatic invertebrates	Daphnia magna	EC ₅₀ 48H	> 100	mg/l
Aquatic plants	Freshwater algae	EC ₅₀ 96H	2029	mg/l
Microorganisms	Activated sludge	EC ₅₀ 96H	> 50	mg/l
ACETONE				
Acute toxicity	Species	Test	Value	Units
Fish	Onchorhynchus mykiss (Rainbow Trout)	LC ₅₀ 96H	5540	mg/l
	Lepomis macrochirus (Bluegill)	LC ₅₀ 96H	8300	mg/l
	FISH	EC ₅₀ 96H	> 100	mg/l
Aquatic invertebrates	Daphnia magna	EC ₅₀ 48H	8800	mg/l
Aquatic plants	Freshwater algae	NOEC 96H	430	mg/l
	Algae	IC ₅₀ 72H	> 100	mg/l
Chronic toxicity	Species	Test	Value	Units
Aquatic invertebrates	Freshwater invertebrates	NOEC 28 days	10 - < 100	mg/l
ETHYL ACETATE				
Acute toxicity	Species	Test	Value	Units
Fish	Pimephales promelas (Fat-head Minnow)	LC ₅₀ 96H	230	mg/l
	Pimephales promelas (Fat-head Minnow)	NOEC 192H	<9.65	mg/l
Aquatic invertebrates	Daphnia magna	EC ₅₀ 48H	610	mg/l
	Daphnia magna	NOEC 192H	2.4	
Aquatic plants	Freshwater algae	EC ₅₀ 48H	5600	mg/l
ROSIN				
Acute toxicity	Species	Test	Value	Units
Fish	Fish	LC ₅₀ 96H	< 10	mg/l
Aquatic invertebrates	Daphnia magna	EC ₅₀ 48H	911	mg/l
Aquatic plants	Algae	IC ₅₀ 72H	> 1000	mg/l
Microorganisms	Activated sludge	EC ₅₀ 3H	> 10000	mg/l

XYLENE				
Acute toxicity	Species	Test	Value	Units
Fish	Pimephales promelas (Fat-head Minnow)	LC ₅₀ 96H	13.4	mg/l
	Onchorhynchus mykiss (Rainbow Trout)	LC ₅₀ 96H	< 11.9	mg/l
Aquatic invertebrates	Daphnia magna	EC ₅₀ 48H	81	mg/l
Aquatic plants	Freshwater algae	EC ₅₀ 48H	110	mg/l
Microorganisms	Activated sludge	EC ₅₀ 48H	1000	mg/l

PARATERTIARYBUTYLPHENOL				
Acute toxicity	Species	Test	Value	Units
Fish	Pimephales promelas (Fat-head Minnow)	LC ₅₀ 96H	> 4.71	mg/l
Aquatic invertebrates	Daphnia magna	EC ₅₀ 48H	> 3.5	mg/l

12.2 Persistence and degradability

Persistence and degradability: The product is expected to be slowly biodegradable.

Phototransformation: Not relevant

Stability (hydrolysis): Not determined

Biodegradation: Not determined

Biological oxygen demand: Not determined

Chemical oxygen demand: Not determined

Ecological information on ingredients:

BUTANONE

Persistence and degradability: The product is biodegradable.

Biodegradation: Air - Degradation (%) 98: 28 days readily biodegradable

ACETONE

Persistence and degradability: The product is readily biodegradable

Biodegradation: - Degradation (%) 91: 28 days readily biodegradable

Biological oxygen demand: 1.9 g O₂ /g substance

Chemical oxygen demand: 2.1 g O₂ /g substance

ETHYL ACETATE

Persistence and degradability: The product is readily biodegradable

Biodegradation: - Degradation (%) 79: 20 days readily biodegradable

ROSIN

Biodegradation: Water and sediment - Degradation (%) 71:
28 days readily biodegradable

XYLENE

Biodegradation: - Degradation (%) 60: > 28 days readily biodegradable

12.3 Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation

Partition coefficient: Not determined

Ecological information on ingredients:

BUTANONE

Bioaccumulative potential: The product is not bioaccumulating

ACETONE

Bioaccumulative potential: The product is not bioaccumulating. BCF: < 10, Will not accumulate

ETHYL ACETATE

Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating
BCF: 30, Leuciscus idus (Golden orfe) readily biodegradable

Partition coefficient: log Pow: 0.73

12.4 Mobility in soil

Mobility: The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces

Adsorption / desorption coefficient: Not determined

Henry's law constant: Not determined

Surface tension: Not determined

Ecological information on ingredients:

BUTANONE

Mobility: The product contains volatile organic compounds (VOCs) which will evaporate easily from all surface

ETHYL ACETATE

Mobility: The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces

Adsorption / desorption Coefficient: Soil - Koc: 1.43 @ 25°C

12.5 Results of PBT and PvB assessment

Results of PBT/vPvB assessment: This product does not contain substances classified as PBT or vPvB.

Ecological information on ingredients:

BUTANONE This product does not contain substances classified as PBT or vPvB

ACETONE This product does not contain substances classified as PBT or vPvB

ETHYL ACETATE This product does not contain substances classified as PBT or vPvB

XYLENE This product does not contain substances classified as PBT or vPvB

12.6 Other adverse effects

Other adverse effects: Not known

SECTION 13: Disposal Consideration

13.1 Waste treatment methods

General information: Waste liquid components should be suitable for incineration at an approved facility
Disposal methods: Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority

SECTION 14: Transport Information

14.1 UN Number

UN number (ADR/RID, IMDG, ICAO): UN 1133

14.2 UN proper shipping name

Shipping name (ADR/RID, IMDG, ICAO, ADN): ADHESIVES (HYDROCARBONS C7-C9, n-alkanes, isoalkanes, cyclics)

14.3 Transport hazard class(es)

Transport class: Class 3: Flammable liquids.
(ADR/RID, IMDG, ICAO)



14.4 Packing group

Packing group (ADR/RID, IMDG, ICAO): II

14.5 Environmental hazards

Environmentally hazardous substance/Marine pollutant:



14.6 Special precautions for user

EMS: F-E, S-D
Emergency Action Code: ●3YE
Hazard No. (ADR/RID): 33
Tunnel Restriction Code: (D/E)

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code”

Transport in bulk according to Annex II Not applicable
of MARPOL 73/78 and the IBC Code:

SECTION 15: Regulatory Information

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

National Regulations

The Control of Substances Hazardous to Health
Regulations 2002 (S.I 2002 No. 2677) (as amended)

EU Legislation
Guidance

Dangerous Substances Directive 67/548/EEC
Workplace Exposure Limits EH40
Safety Data Sheets for Substances and Preparations

15.2 Chemical Safety Assessment

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

SECTION 16: Other Information

Abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Transport of Dangerous Goods by Road
RID Regulations Concerning the International Transport of Dangerous Goods by Rail
IMDG: International Maritime code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemicals Abstracts Service
DNEL: Derived No Effect Level. (REACH)
PNEC: Predicted No Effect Concentration (REACH)
LC50: Lethal Concentration 50 percent
LD50: Lethal Dose 50 percent

Risk phrases used in S. 2 in full:

R11 Highly Flammable
R36/38 Irritating to eyes and skin
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R67 Vapours may cause drowsiness and dizziness

Hazard Statements used in S. 3 in full:

H208 Contains ROSIN. May produce an allergic reaction
H225 Highly flammable liquid and vapour
H226 Flammable liquid and vapour
H304 May be fatal if swallowed and enters airways
H312 Harmful in contact with skin
H315 Causes skin irritation

H317	May cause allergic skin reaction
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H411	Toxic to aquatic life with long-lasting effects

Information on this Health and Safety Data Sheet is drawn from a variety of sources, including raw material suppliers data, and other published sources.

This information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy his/herself as to the suitability of such information for his/her own particular use. This product falls within the scope of the Control of Substances Hazardous to Health (COSHH) Regulations. Users are reminded that this document does not in itself constitute an assessment of workplace risk as required by those regulations.