

MATERIAL SAFETY DATA SHEET

DESCRIPTION

THIXOFIX CONTACT ADHESIVE



ORDER CODE

A 139 MSDS

SECTION 1: Identification of the substance / preparation and company

1.1 Product identifier

Thixofix (Improved)

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

Adhesive

No specific uses advised against are identified

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 of the substance or mixture

Physical hazards

Flam. Liq. 2 - H225

Health hazards

Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Elicitation -
EUH208 STOT SE 3 - H336

Environmental hazards

Aquatic Chronic 2 - H411

Classification (67/548/EEC or
1999/45/EC)

Xi;R36/38. F;R11. N;R51/53. R67.

Human health

The product is irritating to eyes and skin. Product
has a defatting effect on skin.

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Environmental

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

Physicochemical

Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers.

2.2. Label elements

Pictogram



Signal word

Danger

Hazard statements

H315 Causes skin irritation
H225 Highly flammable liquid and vapour
H319 Causes serious eye irritation
H411 Toxic to aquatic life with long lasting effects
H336 May cause drowsiness or dizziness

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

Contains

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

Supplementary precautionary Statements

CYCLOHEXANE, BUTANONE, Hydrocarbons, C7-C9, nalkanes, isoalkanes, cyclics < 0.1% benzene, ACETONE, ETHYL ACETATE

P240 Ground/bond container and receiving equipment

P241 Use explosion-proof electrical equipment

P242 Use only non-sparking tools

P264 Wash contaminated skin thoroughly after handling

P271 Use only outdoors or in a well-ventilated area

P280 Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 IF ON SKIN: Wash with plenty of water
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water/shower
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P321 Specific treatment (see medical advice on this label)
P332+P313 If skin irritation occurs: Get medical advice/attention
P337+P313 If eye irritation persists: Get medical advice/attention
P362+P364 Take off contaminated clothing and wash it before reuse
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish
P391 Collect spillage
P403+P235 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

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition / information on ingredients

3.1 Mixtures

| | |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| CYCLOHEXANE | 10-30% |
| CAS number: 110-82-7 EC number: 203-806-2 | REACH registration number: 01-2119463273-41 |
| M factor (Acute) = 1 | M factor (Chronic) = 1 |
| Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 | Classification (67/548/EEC or 1999/45/EC) F;R11 Xn;R65 Xi;R38 R67 N;R50/53 |

| | | |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------|
| Aquatic Chronic 1 - H410 | | |
| BUTANONE | | 10-30% |
| CAS number: 78-93-3 | EC number: 201-159-0 | REACH registration number: 01-2119457290-43 |
| Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336 | Classification (67/548/EEC or 1999/45/EC) F;R11 Xi;R36 R66 R67 | |
| Hydrocarbons,C7-C9,n-alkanes, isoalkanes,cyclics<0.1%benzene | | |
| CAS number: — | EC number: 920-750-0 | REACH registration number: 01-2119473851-33 |
| Classification Flam. Liq. 2 - H225 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411 | Classification (67/548/EEC or 1999/45/EC) Xn;R65. F;R11. N;R51/53. R66,R67. | |
| ACETONE | | |
| CAS number: 67-64-1 | EC number: 200-662-2 | REACH registration number: 01-2119471330-49 |
| Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336 | Classification (67/548/EEC or 1999/45/EC) F;R11 Xi;R36 R66 R67 | |
| ETHYL ACETATE | | |
| CAS number: 141-78-6 | EC number: 205-500-4 | REACH registration number: 01-2119475103-46 |
| Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336 | Classification (67/548/EEC or 1999/45/EC) F;R11 Xi;R36 R66 R67 | |
| ROSIN | | |
| CAS number: 8050-09-7 | EC number: 232-475-7 | <1% |
| Classification Skin Sens. 1 - H317 | Classification (67/548/EEC or 1999/45/EC) R43 | |

SECTION 4: First Aid Measures

4.1. Description of first aid measures

| | |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General information | Move affected person to fresh air at once. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep the affected person warm and at rest. Get prompt medical attention. |
| Inhalation | Remove affected person from source of contamination. Move affected person to fresh air at once. If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any |

| | |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ingestion | discomfort continues. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if a large quantity has been ingested. Show this Safety Data Sheet to the medical personnel. |
| Skin contact | Remove contaminated clothing immediately and wash skin with soap and water. |
| Eye contact | No specific recommendations. If in doubt, get medical attention promptly. |
| Protection of first aiders | 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 dependent on the concentration and the length of exposure |
| Inhalation | Vapours may cause headache, fatigue, dizziness and nausea. |
| Ingestion | May cause stomach pain or vomiting. |
| 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. |

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

| | |
|----------------------|---------------------------------------------------------------------------|
| Notes for the doctor | No specific recommendations. If in doubt, get medical attention promptly. |
|----------------------|---------------------------------------------------------------------------|

SECTION 5: Fire-fighting Measures

5.1. Extinguishing media

| | |
|--------------------------------|------------------------------------------------------------------------|
| Suitable extinguishing media | Extinguish with alcohol-resistant foam, carbon dioxide or dry powder. |
| 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

| | |
|------------------|--------------------------------------------------------------------------------------------------------------|
| Specific hazards | Heating may generate flammable vapours. The product is highly flammable. Vapours may form explosive mixtures |
|------------------|--------------------------------------------------------------------------------------------------------------|

Hazardous combustion products with air. Vapours may accumulate on the floor and in low-lying areas.
Fire creates: Thermal decomposition or combustion may include the following substances: Irritating gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen chloride (HCl).

5.3. Advice for firefighters

Protective actions during 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 or watercourses or onto the ground.

6.3. Methods and material 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 spillage with sand or other inert absorbent.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

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)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls / Personal Protection

8.1. Control parameters

Occupational exposure limits

CYCLOHEXANE

Long-term exposure limit (8-hour TWA): WEL 100 350 mg/m³
Short-term exposure limit (15-minute): WEL 300 1050 mg/m³

BUTANONE

Long-term exposure limit (8-hour TWA): WEL 200 ppm(Sk) 600 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 300 ppm(Sk) 899 mg/m³(Sk)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics < 0.1% benzene
Long-term exposure limit (8-hour TWA): WEL 200 ppm 1,000 mg/m³

ACETONE

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m³
Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m³

ETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 200 ppm
Short-term exposure limit (15-minute): WEL 400 ppm

ROSIN

Long-term exposure limit (8-hour TWA): WEL 0.05 mg/m³
Short-term exposure limit (15-minute): WEL 0.15 mg/m³

TOLUENE

Long-term exposure limit (8-hour TWA): 50 191
Short-term exposure limit (15-minute): 100 384
WEL = Workplace Exposure Limit

CYCLOHEXANE (CAS: 110-82-7)

DNEL

- Industry - Inhalation; Short term systemic effects: 700 mg/m³
- Industry - Inhalation; Short term local effects: 700 mg/m³
- Industry - Dermal; Long term systemic effects: 2016 mg/kg/day
- Industry - Inhalation; Long term systemic effects: 700 mg/m³
- Industry - Oral; Long term local effects: 700 mg/m³
- Consumer - Inhalation; Long term systemic effects: 412 mg/m³
- Consumer - Inhalation; Long term local effects: 412 mg/m³
- Consumer - Oral; Long term systemic effects: 59.4 mg/kg/day
- Consumer - Dermal; Long term systemic effects: 1186 mg/kg/day

PNEC

- Fresh water; 0.207 mg/l
- Marine water; 0.207 mg/l
- STP; 3.24 mg/l
- Sediment (Freshwater); 3.627 mg/kg
- Sediment (Marinewater); 3.627 mg/kg
- Soil; 2.99 mg/kg

BUTANONE (CAS: 78-93-3)

DNEL Consumer - Oral; Long term systemic effects: 31 mg/kg/day
Consumer - Dermal; Long term systemic effects: 412 mg/kg/day
Industry - Dermal; Long term systemic effects: 1161 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 106 mg/m³
Industry - Inhalation; Long term systemic effects: 600 mg/m³

PNEC - Fresh water; 55.8 mg/l
- Marine water; 55.8 mg/l
- Intermittent release; 55.8 mg/l
- STP; 709 mg/l
- Sediment (Marinewater); 284.7 mg/kg
- Soil; 22.5 mg/kg
- Sediment (Freshwater); 284.7 mg/kg

Hydrocarbons,C7-C9,n-alkanes,isoalkanes,cyclics<0.1%benzene

Ingredient comments No exposure limits known for ingredient(s)

DNEL Consumer - Oral; Long term systemic effects: 699 mg/kg/day
Consumer - Dermal; Long term systemic effects: 699 mg/kg/day
Industry - Dermal; Long term systemic effects: 773 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 608 mg/m³
Industry - Inhalation; Long term systemic effects: 2035 mg/m³

ACETONE (CAS: 67-64-1)

Ingredient comments WEL = Workplace Exposure Limits

DNEL Industry - Dermal; Short term systemic effects: 186 mg/m³
Industry - Inhalation; Short term local effects: 2420 mg/m³
Industry - Inhalation; Long term systemic effects: 1210 mg/m³
Consumer - Dermal; Long term systemic effects: 62 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 200 mg/m³
Consumer - Oral; Long term systemic effects: 62 mg/m³
- Dermal; Long term systemic effects: 186 mg/kg/day

PNEC - Fresh water; 10.6 mg/l
- Marine water; 1.06 mg/l
- Sediment (Freshwater); 30.4 mg/kg
- Sediment (Marinewater); 3.04 mg/kg
- Soil; 29.5 mg/kg
- STP; 100 mg/l

ETHYL ACETATE (CAS: 141-78-6)

DNEL

- Industry - Inhalation; Short term systemic effects: 1468 mg/m³
- Industry - Inhalation; Short term local effects: 1468 mg/m³
- Consumer - Inhalation; Short term systemic effects: 734 mg/m³
- Consumer - Inhalation; Short term local effects: 734 mg/m³
- Industry - Inhalation; Long term local effects: 734 mg/m³
- Industry - Dermal; Long term systemic effects: 63 mg/kg/day
- Industry - Inhalation; Long term systemic effects: 734 mg/m³
- Consumer - Dermal; Long term systemic effects: 37 mg/kg/day
- Consumer - Inhalation; Long term systemic effects: 367 mg/m³

PNEC

- Fresh water; 0.26 mg/l
- Marine water; 0.026 mg/l
- Intermittent release; 1.65 mg/l
- Sediment (Freshwater); 1.25 mg/kg
- Sediment (Marinewater); 0.125 mg/kg
- Soil; 0.24 mg/kg
- STP; 650 mg/l

TOLUENE (CAS: 108-88-3)

DNEL

- Consumer - Oral; Long term systemic effects: 8.13 mg/m³
- Industry - Dermal; Long term systemic effects: 384 mg/kg/day
- Consumer - Inhalation; Short term local effects: 226 mg/m³
- Consumer - Inhalation; Short term systemic effects: 226 mg/m³
- Industry - Inhalation; Short term systemic effects: 384 mg/m³
- Industry - Inhalation; Short term local effects: 384 mg/m³
- Industry - Inhalation; Long term local effects: 192 mg/m³
- Consumer - Inhalation; Long term systemic effects: 56.5 mg/m³
- Industry - Inhalation; Long term systemic effects: 192 mg/m³

PNEC

- Industry - Fresh water; 0.68 mg/l
- Industry - Sediment (Freshwater); 16.39 mg/kg
- Industry - STP; 13.61 mg/l
- Industry - Soil; 2.89 mg/kg

8.2. Exposure controls

Protective equipment



| | |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering controls | Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients. |
| Eye/face protection | Wear chemical splash goggles. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. |
| Hand protection | Wear protective gloves made of the following material: Nitrile rubber. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of 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 and body protection | Wear suitable protective clothing as protection against splashing or contamination. |
| 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. |
| Respiratory protection | If ventilation is inadequate, suitable respiratory protection must be worn. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. |
| Thermal hazards | Contact with hot product can cause serious thermal burns. |
| Environmental exposure controls | Keep container tightly sealed when not in use. |

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

| | |
|------------|---------------|
| Appearance | Coloured gel. |
| Colour | Amber. |

| | |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Odour | Organic solvents. |
| Odour threshold | Not determined. |
| pH | Not available. |
| Melting point | Not applicable. |
| Flash point | -17°C CC (Closed cup). |
| Evaporation rate | Not available. |
| Evaporation factor | Not determined. |
| Upper/lower flammability or explosive limits | Upper flammable/explosive limit: 13 Lower flammable/explosive limit: 1 |
| Vapour pressure | Not available. |
| Vapour density | Not available. |
| Relative density | 0.85 – 0.86 @ @ 20°C |
| Bulk density | Not applicable. |
| Solubility(ies) | Slightly soluble in water. |
| Partition coefficient | Not determined. |
| Auto-ignition temperature | Not determined. |
| Decomposition Temperature | Not determined. |
| Viscosity | GEL @ 23°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. |
| Volatility | Volatile. |
| Saturation concentration | Not available. |
| Critical temperature | Not determined. |
| Volatile organic compound | This product contains a maximum VOC content of 684 g/litre. |

SECTION 10: Stability and Reactivity

10.1. Reactivity

| | |
|------------|---------------------------------------------------------------------|
| Reactivity | There are no known reactivity hazards associated with this product. |
|------------|---------------------------------------------------------------------|

10.2. Chemical stability

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

Hazardous decomposition 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.
ATE oral (mg/kg) 2,040.82

Acute toxicity - dermal
Notes (dermal LD₅₀) Not determined.
ATE dermal (mg/kg) 5,510.2

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

Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations. May cause eye and respiratory system irritation. Symptoms following overexposure may include the following: Headache. Vapours may cause drowsiness and dizziness.

Ingestion

May cause stomach pain or vomiting.

Skin contact

Irritating to skin. May cause allergic contact eczema.

Eye contact

Irritating to eyes.

Acute and chronic health hazards

Route of entry

Inhalation Skin absorption

Toxicological information on ingredients.

CYCLOHEXANE

Acute toxicity – oral

| | |
|----------------------------------------------|----------|
| Acute toxicity oral (LD ₅₀ mg/kg) | 12,705.0 |
| Species | Rat |
| ATE oral (mg/kg) | 12,705.0 |

Acute toxicity – dermal

| | |
|------------------------------------------------|--------|
| Acute toxicity dermal (LD ₅₀ mg/kg) | 2,000 |
| Species | Rabbit |

BUTANONE

Acute toxicity – oral

| | |
|----------------------------------------------|---------|
| Acute toxicity oral (LD ₅₀ mg/kg) | 2,500.0 |
|----------------------------------------------|---------|

Species Rat

Acute toxicity – dermal

Acute toxicity dermal (LD₅₀
mg/kg) 2,500.0

Species Rabbit
ATE dermal (mg/kg) 2,500.0

Acute toxicity – inhalation

Acute toxicity inhalation
(LC₅₀ vapours mg/l) 5,000

Species Rat

ATE inhalation (vapours
mg/l) 5,000

Hydrocarbons,C7-C9,n-alkanes,isoalkanes,cyclics<0.1%benzene

Acute toxicity – oral

Acute toxicity oral (LD₅₀
mg/kg) 5,850.0

Species Rat
ATE oral (mg/kg) 5,850.0

Acute toxicity – dermal

Acute toxicity dermal (LD₅₀
mg/kg) 3,000.0

Species Rabbit
ATE dermal (mg/kg) 3,000.0

ACETONE

Acute toxicity – oral

Acute toxicity oral (LD₅₀
mg/kg) 5,800.0

Species Rat
ATE oral (mg/kg) 5,800.0

Acute toxicity – dermal

| | |
|---------------------------------------------------|---------|
| Acute toxicity dermal (LD ₅₀ mg/kg) | 7,400.0 |
| Species | Rabbit |

Acute toxicity – inhalation

| | |
|--------------------------------------------------------------|-----|
| Acute toxicity inhalation (LC ₅₀ vapours mg/l) | 76 |
| Species | Rat |

| | |
|----------------------------------|----|
| ATE inhalation (vapours mg/l) | 76 |
|----------------------------------|----|

ETHYL ACETATE

Acute toxicity – oral

| | |
|-------------------------------------------------|---------|
| Acute toxicity oral (LD ₅₀ mg/kg) | 4,100.0 |
| Species | Mouse |
| ATE oral (mg/kg) | 4,100.0 |

Acute toxicity - dermal

| | |
|---------------------------------------------------|---------|
| Acute toxicity dermal (LD ₅₀ mg/kg) | 2,005.0 |
| Species | Rabbit |
| ATE dermal (mg/kg) | 2,005.0 |

Acute toxicity – inhalation

| | |
|--------------------------------------------------------------|------|
| Acute toxicity inhalation (LC ₅₀ vapours mg/l) | 30.0 |
| Species | Rat |

Notes (inhalation LC₅₀)

| | |
|----------------------------------|----|
| ATE inhalation (vapours mg/l) | 30 |
|----------------------------------|----|

Skin sensitisation

| | |
|----------------------------------------------------|---------------------------------------------------------------|
| Skin sensitisation | Guinea pig maximization test (GPMT) - Guinea pig: Negative |
| Reproductive toxicity | |
| Reproductive toxicity - fertility | - NOAEL 16000 ppm, Inhalation, Rat P |
| Reproductive toxicity - Development | - NOAEL: 20000 ppm, Inhalation, Rat |
| Specific target organ toxicity - repeated exposure | |
| STOT - repeated exposure | Conclusive data but not sufficient for classification. |

Poly(2-chloro-1,3-butadiene)

Acute toxicity – oral

| | |
|----------------------------------------------|---------|
| Acute toxicity oral (LD ₅₀ mg/kg) | 7,800.0 |
| Species | Rat |
| ATE oral (mg/kg) | 7,800.0 |

Acute toxicity – dermal

| | |
|------------------------------------------------|---------|
| Acute toxicity dermal (LD ₅₀ mg/kg) | 2,505.0 |
| Species | Rabbit |
| ATE dermal (mg/kg) | 2,505 |

Acute toxicity – inhalation

| | |
|-------------------------------------------------------------|---------|
| Acute toxicity inhalation (LC ₅₀ dust/mist mg/l) | 2,300.0 |
| Species | Mouse |
| ATE inhalation (dusts/mists mg/l) | 2,300.0 |

Acute toxicity – oral

| | |
|----------------------------------------------|---------|
| Acute toxicity oral (LD ₅₀ mg/kg) | 6,000.0 |
|----------------------------------------------|---------|

SECTION 12: Ecological Information

Ecotoxicity

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

12.1. Toxicity

| | |
|-------------------------------------------------|-----------------|
| Acute toxicity – fish | Not determined. |
| Acute toxicity – aquatic invertebrates | Not determined. |
| Acute toxicity - aquatic plants | Not determined. |
| Acute toxicity - microorganisms | Not determined. |
| Acute toxicity – 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.

CYCLOHEXANE

Acute aquatic toxicity

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------|
| LE(C) ₅₀ | 0.1 < L(E)C ₅₀ ≤ 1 |
| M factor (Acute) | 1 |
| Acute toxicity – fish | LC ₅₀ , 96 hours, 96 hours: 4.53 mg/l, Pimephales promelas (Fat-head Minnow) |
| Acute toxicity – aquatic invertebrates | EC ₅₀ , 48 hours, 48 hours: 31.9 mg/l, Daphnia magna |
| Acute toxicity – aquatic plants | EC ₅₀ , 72 hours, 72 hours: 3.4 mg/l, Selenastrum capricornutum |
| Chronic aquatic toxicity | |
| M factor (Chronic) | 1 |

BUTANONE

Acute toxicity – fish LC₅₀, 96 hours, 96 hours: 2993 mg/l, Pimephales promelas (Fat-head Minnow)
LC₅₀, 48 hours, 48 hours: > 100 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity – aquatic invertebrates EC₅₀, 48 hours, 48 hours: > 100 mg/l, Daphnia magna

Acute toxicity – aquatic plants EC₅₀, 96 hours, 96 hours: 2029 , Freshwater algae

Acute toxicity – Microorganisms EC₅₀, 96 hours, 96 hours: > 50 mg/l, Activated sludge

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics <0.1% benzene

Acute toxicity – fish LC₅₀, 96 hours: 1-10 mg/l, Fish

Acute toxicity – aquatic Invertebrates EC₅₀, 48 hours: 10-100 mg/l, Daphnia magna

ACETONE

Acute toxicity – fish LC₅₀, 96 hours, 96 hours: 5540 mg/l, Onchorhynchus mykiss (Rainbow trout)

LC₅₀, 96 hours, 96 hours: 8,300 mg/l, Lepomis macrochirus (Bluegill)

LC₅₀, 96 hours: >100 mg/l, Fish

Acute toxicity – aquatic invertebrates EC₅₀, 48 hours, 48 hours: 8,800 mg/l, Daphnia magna

Acute toxicity – aquatic plants NOEC, 96 hours, 96 hours: 430 mg/l, Freshwater algae
IC₅₀, 72 hours: >100 mg/l, Algae

Chronic toxicity – aquatic invertebrates NOEC, 28 days, 28 days: 10-<100 mg/l, Freshwater invertebrates

ETHYL ACETATE

Acute toxicity – fish LC₅₀, 96 hours, 96 hours: 230 mg/l, Pimephales promelas (Fat-head Minnow)

NOEC, 192 hours: < 9.65 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity – aquatic Invertebrates EC₅₀, 48 hours, 48 hours: 610 mg/l, Daphnia magna
NOEC, 192 hours, 192 hours: 2.4 mg/l, Daphnia magna

Acute toxicity – aquatic Plants EC₅₀, 48 hours, 48 hours: 5,600 mg/l, Freshwater algae

12.2. Persistence and degradability

| | |
|-------------------------------|----------------------------------------------|
| Persistence and degradability | The product is expected to be 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 (%) : days readily biodegradable - Degradation (%) 91: 28 days readily biodegradable |
| Biological oxygen demand | 1.9 g O ₂ /g substance |
| Chemical oxygen demand | 2.1 g O ₂ /g substance |

ETHYL ACETATE

| | |
|-------------------------------|-----------------------------------------------------|
| Persistence and degradability | The product is readily biodegradable. |
| Biodegradation | - Degradation (%) 79: 20 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 surfaces.

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 vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

BUTANONE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

ACETONE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

ETHYL ACETATE

Results of PBT and vPvB assessment This product does not contain any 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 No. (ADR/RID) 1133
UN No. (IMDG) 1133
UN No. (ICAO) 1133

14.2. UN proper shipping name

| | |
|--------------------------------|-------------------------|
| Proper shipping name (ADR/RID) | ADHESIVES (CYCLOHEXANE) |
| Proper shipping name (IMDG) | ADHESIVES (CYCLOHEXANE) |
| Proper shipping name (ICAO) | ADHESIVES (CYCLOHEXANE) |
| Proper shipping name (ADN) | ADHESIVES (CYCLOHEXANE) |

14.3. Transport hazard class(es)

| | |
|-------------------------|---|
| ADR/RID class | 3 |
| ADR/RID subsidiary risk | |
| ADR/RID label | 3 |
| IMDG class | 3 |
| IMDG subsidiary risk | |
| ICAO class/division | 3 |
| ICAO subsidiary risk | |
| Transport labels | |

14.4. Packing group

| | |
|-----------------------|-----|
| ADR/RID packing group | III |
| IMDG packing group | III |
| ICAO packing group | III |

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 Identification Number (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 of MARPOL 73/78 and the IBC Code Not applicable

SECTION 15: Regulatory Information

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

| | |
|-------------------------------------------------|-------------------------------------------------------------------------------------------|
| National regulations | Petroleum (Consolidation) Act, as amended 1984 SI 1244. Control of Pollution Act 1974. |
| EU legislation | System of specific information relating to Dangerous Preparations. 2001/58/EC. |
| Guidance | Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations. |
| Authorisations (Title VII Regulation 1907/2006) | No specific authorisations are known for this product. |
| Restrictions (Title VIII Regulation 1907/2006) | No specific restrictions on use are known for this product. |

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other Information

| | |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Abbreviations and acronyms the safety data sheet | ADR : European Agreement concerning the used in 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 Organization GHS : Globally Harmonized System of Classification and Labelling of Chemicals EINECS : European Inventory of Existing Commercial Chemical Substances |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Key literature references and sources for data | CAS : Chemical Abstracts Service |
| Revision comments | DNEL ; Derived No Effect Level (REACH) |
| Revision date | PNEC : Predicted No Effect Concentration (REACH) |
| Revision | LC50 : Lethal Concentration 50 percent |
| Risk phrases in full | LD50 : Lethal Dose 50 percent |
| | Dangerous Properties of Industrial Materials Report, N.Sax et.al. |
| | NOTE: Lines within the margin indicate significant changes from the previous revision. |
| | Refer to date at bottom of sheet |
| | 1 |
| | R11 Highly flammable. |
| | R36 Irritating to eyes. |
| | R36/38 Irritating to eyes and skin. |
| | R38 Irritating to skin. |
| | R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| | R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| | R65 Harmful: may cause lung damage if swallowed. |
| | R66 Repeated exposure may cause skin dryness or cracking. |
| | R67 Vapours may cause drowsiness and dizziness. |
| Hazard statements in full | EUH208 Contains ROSIN. May produce an allergic reaction. |
| | 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. |
| | 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. |