# Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006) as amended by Regulation (EU) 2020/878

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

**1.1. Product identifier**
3M Scotch-Weld(tm) Clear Primer 9348

**Product Identification Numbers**
UU-0082-7733-5

7100132671

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

**Identified uses**
Adhesive primer

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

| | |
|---|---|
| **Address:** | 3M Ireland Limited, 70 SIR JOHN ROGERSON'S QUAY, D02R296 DUBLIN 2 |
| **Telephone:** | +353 1 280 3555 |
| **E Mail:** | ner-productstewardship@mmm.com |
| **Website:** | www.3M.com |

**1.4. Emergency telephone number**
Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

## SECTION 2: Hazard identification

**2.1. Classification of the substance or mixture**
**CLP REGULATION (EC) No 1272/2008**

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

**CLASSIFICATION:**
Flammable Liquid, Category 2 - Flam. Liq. 2; H225

Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Carcinogenicity, Category 2 - Carc. 2; H351
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

**2.2. Label elements**
**CLP REGULATION (EC) No 1272/2008**

**SIGNAL WORD**
DANGER.

**Symbols**
GHS02 (Flame) |GHS07 (Exclamation mark) |GHS08 (Health Hazard) |

**Pictograms**



**Ingredients:**

| Ingredient | Identifier(s) | EC No. | % by Wt |
|---|---|---|---|
| acetone | 67-64-1 | 200-662-2 | 30 - 60 |
| butanone | 78-93-3 | 201-159-0 | 15 - 40 |
| tetrahydrofuran | 109-99-9 | 203-726-8 | 1 - 5 |

**HAZARD STATEMENTS:**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H351 | Suspected of causing cancer. |
| H336 | May cause drowsiness or dizziness. |
| H412 | Harmful to aquatic life with long lasting effects. |

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261E | Avoid breathing vapour or spray. |
| P280I | Wear protective gloves, eye protection, face protection, and respiratory protection. |

**Response:**

| | |
|---|---|
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P370 + P378 | In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish. |

**SUPPLEMENTAL INFORMATION:**

**Supplemental Hazard Statements:**

EUH066 Repeated exposure may cause skin dryness or cracking.

13% of the mixture consists of components of unknown acute oral toxicity.

### 2.3. Other hazards

None known.
This material does not contain any substances that are assessed to be a PBT or vPvB

## SECTION 3: Composition/information on ingredients

### 3.1. Substances
Not applicable

### 3.2. Mixtures

| Ingredient | Identifier(s) | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| acetone | (CAS-No.) 67-64-1<br>(EC-No.) 200-662-2 | 30 - 60 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>EUH066 |
| butanone | (CAS-No.) 78-93-3<br>(EC-No.) 201-159-0<br>(REACH-No.) 01-2119457290-43 | 15 - 40 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>EUH066 |
| Acrylic polymer | Trade Secret | 10 - 30 | Substance not classified as hazardous |
| tetrahydrofuran | (CAS-No.) 109-99-9<br>(EC-No.) 203-726-8 | 1 - 5 | Flam. Liq. 2, H225<br>EUH019<br>Eye Irrit. 2, H319<br>Carc. 2, H351<br>STOT SE 3, H335<br>Acute Tox. 4, H302<br>STOT SE 3, H336 |
| toluene | (CAS-No.) 108-88-3<br>(EC-No.) 203-625-9<br>(REACH-No.) 01-2119471310-51 | < 3 | Flam. Liq. 2, H225<br>Asp. Tox. 1, H304<br>Skin Irrit. 2, H315<br>Repr. 2, H361d<br>STOT SE 3, H336<br>STOT RE 2, H373<br>Aquatic Chronic 3, H412 |
| Resin acids and rosin acids, esters with glycerol | (CAS-No.) 8050-31-5<br>(EC-No.) 232-482-5 | 0.5 - 1.5 | Aquatic Chronic 3, H412 |
| methyl acetate | (CAS-No.) 79-20-9<br>(EC-No.) 201-185-2 | < 1.5 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>EUH066 |
| 4-methylpentan-2-one | (CAS-No.) 108-10-1<br>(EC-No.) 203-550-1 | < 1 | Flam. Liq. 2, H225<br>Acute Tox. 4, H332(LC50 = 11 mg/l ATE values per Annex VI )<br>Eye Irrit. 2, H319 |

| | | | |
|---|---|---|---|
| | | | Carc. 2, H351<br>STOT SE 3, H336<br>EUH066 |
| cyclohexane | (CAS-No.) 110-82-7<br>(EC-No.) 203-806-2 | < 1 | Flam. Liq. 2, H225<br>Asp. Tox. 1, H304<br>Skin Irrit. 2, H315<br>STOT SE 3, H336<br>Aquatic Acute 1, H400,M=1<br>Aquatic Chronic 1, H410,M=1 |

Please see section 16 for the full text of any H statements referred to in this section

**Specific Concentration Limits**

| Ingredient | Identifier(s) | Specific Concentration Limits |
|---|---|---|
| tetrahydrofuran | (CAS-No.) 109-99-9<br>(EC-No.) 203-726-8 | (C >= 25%) Eye Irrit. 2, H319<br>(C >= 25%) STOT SE 3, H335 |

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

**Inhalation**
Remove person to fresh air. If you feel unwell, get medical attention.

**Skin contact**
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye contact**
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

**If swallowed**
Rinse mouth. If you feel unwell, get medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**
The most important symptoms and effects based on the CLP classification include:
Dermal defatting (localized redness, itching, drying and cracking of skin). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

**4.3. Indication of any immediate medical attention and special treatment required**
Not applicable

## SECTION 5: Fire-fighting measures

**5.1. Extinguishing media**
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**5.2. Special hazards arising from the substance or mixture**
Closed containers exposed to heat from fire may build pressure and explode.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Aldehydes. | During combustion. |
| Hydrocarbons. | During combustion. |
| Carbon monoxide | During combustion. |
| Carbon dioxide. | During combustion. |
| Hydrogen cyanide. | During combustion. |
| Ketones. | During combustion. |
| Oxides of nitrogen. | During combustion. |

**5.3. Advice for fire-fighters**
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

**6.2. Environmental precautions**
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

**6.3. Methods and material for containment and cleaning up**
Contain spill. Cover spill area with a fire extinguishing foam that is resistant to polar solvents. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

**6.4. Reference to other sections**
Refer to Section 8 and Section 13 for more information

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools.

Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators…) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

**7.2. Conditions for safe storage including any incompatibilities**
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidising agents.

**7.3. Specific end use(s)**
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | Identifier(s) | Agency | Limit type | Additional comments |
|---|---|---|---|---|
| 4-methylpentan-2-one | 108-10-1 | Ireland OELs | TWA(8 hours):83 mg/m3(20 ppm);STEL(15 minutes):208 mg/m3(50 ppm) | SKIN |
| toluene | 108-88-3 | Ireland OELs | TWA(8 hours):192 mg/m3(50 ppm);STEL(15 minutes):384 mg/m3(100 ppm) | SKIN |
| tetrahydrofuran | 109-99-9 | Ireland OELs | TWA(8 hours):150 mg/m3(50 ppm);STEL(15 minutes):300 mg/m3(100 ppm) | SKIN |
| cyclohexane | 110-82-7 | Ireland OELs | TWA(8 hours):700 mg/m3(200 ppm) | |
| acetone | 67-64-1 | Ireland OELs | TWA(8 hours):1210 mg/m3(500 ppm) | |
| butanone | 78-93-3 | Ireland OELs | TWA(8 hours):600 mg/m3(200 ppm);STEL(15 minutes):900 mg/m3(300 ppm) | SKIN |
| methyl acetate | 79-20-9 | Ireland OELs | TWA(8 hours):610 mg/m3(200 ppm);STEL(15 minutes):760 mg/m3(250 ppm) | |

Ireland OELs : Ireland. OELs
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

**Biological limit values**
No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

**Recommended monitoring procedures:**Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

**8.2. Exposure controls**

**8.2.1. Engineering controls**
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.
Indirect vented goggles.

*Applicable Norms/Standards*
Use eye protection conforming to EN 16321

**Skin/hand protection**
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended:

| Material | Thickness (mm) | Breakthrough Time |
|---|---|---|
| Polymer laminate | >0.30 | =>8 hours |

The glove data presented are based on the substance driving dermal toxicity and the conditions present at the time of testing. Breakthrough time may be altered when the glove is subjected to use conditions that place additional stress on the glove.

*Applicable Norms/Standards*
Use gloves tested to EN 374

**Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates
Organic vapor cartridges may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

*Applicable Norms/Standards*
Use a respirator conforming to EN 140 or EN 136: filter types A & P

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | Transparent Colorless |
| **Odor** | Ketones. |
| **Odour threshold** | *No data available.* |
| **Melting point/freezing point** | *Not applicable.* |

| | |
|---|---|
| **Boiling point/boiling range** | >=56 ºC [*Details:*Acetone boiling point] |
| **Flammability** | Flammable Liquid: Category 2. |
| **Flammable Limits(LEL)** | *No data available.* |
| **Flammable Limits(UEL)** | *No data available.* |
| **Flash point** | >=-18 ºC [*Test Method:*Closed Cup] |
| **Autoignition temperature** | *No data available.* |
| **Decomposition temperature** | *No data available.* |
| **pH** | *substance/mixture is non-soluble (in water)* |
| **Kinematic Viscosity** | 68.5 mm²/sec [@ 20 ºC] |
| **Water solubility** | *No data available.* |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Vapour pressure** | *No data available.* |
| **Density** | *No data available.* |
| **Relative density** | 0.73 - 0.93 [*Ref Std:*WATER=1] |
| **Relative Vapour Density** | *No data available.* |
| **Particle Characteristics** | *Not applicable.* |

**9.2. Other information**

**9.2.2 Other safety characteristics**

| | |
|---|---|
| **EU Volatile Organic Compounds** | *No data available.* |
| **Evaporation rate** | *No data available.* |
| **Percent volatile** | approximately 88 |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

**10.2 Chemical stability**
Stable.

**10.3 Possibility of hazardous reactions**
Hazardous polymerisation will not occur.

**10.4 Conditions to avoid**
Heat.
Sparks and/or flames.

**10.5 Incompatible materials**
Strong oxidising agents.

**10.6 Hazardous decomposition products**

| **Substance** | **Condition** |
|---|---|
| None known. | |

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

**The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.**

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

**Signs and Symptoms of Exposure**

**Based on test data and/or information on the components, this material may produce the following health effects:**

**Inhalation**
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

**Skin contact**
Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

**Eye contact**
Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**Ingestion**
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

**Additional Health Effects:**

**Single exposure may cause target organ effects:**
Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

**Prolonged or repeated exposure may cause target organ effects:**
Ocular effects: Signs/symptoms may include blurred or significantly impaired vision. Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Olfactory effects: Signs/symptoms may include decreased ability to detect odours and complete loss of smell. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate.

**Reproductive/Developmental Toxicity:**
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

**Carcinogenicity:**
Contains a chemical or chemicals which can cause cancer.

**Toxicological Data**
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Overall product | Inhalation-Vapour(4 hr) | | No data available; calculated ATE >50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| acetone | Dermal | Rabbit | LD50 > 15,688 mg/kg |

| | | | |
|---|---|---|---|
| acetone | Inhalation-Vapour (4 hours) | Rat | LC50 76 mg/l |
| acetone | Ingestion | Rat | LD50 5,800 mg/kg |
| butanone | Dermal | Rabbit | LD50 > 8,050 mg/kg |
| butanone | Inhalation-Vapour (4 hours) | Rat | LC50 34.5 mg/l |
| butanone | Ingestion | Rat | LD50 2,737 mg/kg |
| toluene | Dermal | Rat | LD50 12,000 mg/kg |
| toluene | Inhalation-Vapour (4 hours) | Rat | LC50 30 mg/l |
| toluene | Ingestion | Rat | LD50 5,550 mg/kg |
| tetrahydrofuran | Dermal | Rat | LD50 > 2,000 mg/kg |
| tetrahydrofuran | Inhalation-Vapour (4 hours) | Rat | LC50 54 mg/l |
| tetrahydrofuran | Ingestion | Rat | LD50 1,650 mg/kg |
| methyl acetate | Dermal | Rat | LD50 > 2,000 mg/kg |
| methyl acetate | Inhalation-Vapour (4 hours) | Rat | LC50 > 49 mg/l |
| methyl acetate | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Resin acids and rosin acids, esters with glycerol | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Resin acids and rosin acids, esters with glycerol | Ingestion | Rat | LD50 > 2,000 mg/kg |
| 4-methylpentan-2-one | Dermal | Rabbit | LD50 > 16,000 mg/kg |
| 4-methylpentan-2-one | Inhalation-Vapour (4 hours) | Rat | LC50 11 mg/l |
| 4-methylpentan-2-one | Ingestion | Rat | LD50 3,038 mg/kg |
| cyclohexane | Dermal | Rat | LD50 > 2,000 mg/kg |
| cyclohexane | Inhalation-Vapour (4 hours) | Rat | LC50 > 32.9 mg/l |
| cyclohexane | Ingestion | Rat | LD50 6,200 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| acetone | Mouse | Minimal irritation |
| butanone | Rabbit | Minimal irritation |
| toluene | Rabbit | Irritant |
| tetrahydrofuran | Rabbit | Minimal irritation |
| methyl acetate | Rabbit | No significant irritation |
| Resin acids and rosin acids, esters with glycerol | Rabbit | Minimal irritation |
| 4-methylpentan-2-one | Rabbit | Mild irritant |
| cyclohexane | Rabbit | Mild irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| acetone | Rabbit | Severe irritant |
| butanone | Rabbit | Severe irritant |
| toluene | Rabbit | Moderate irritant |
| tetrahydrofuran | Rabbit | Corrosive |
| methyl acetate | Rabbit | Moderate irritant |
| Resin acids and rosin acids, esters with glycerol | Rabbit | Mild irritant |
| 4-methylpentan-2-one | Rabbit | Mild irritant |
| cyclohexane | Rabbit | Mild irritant |

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| toluene | Guinea pig | Not classified |
| tetrahydrofuran | Human and animal | Not classified |
| methyl acetate | Human | Not classified |
| Resin acids and rosin acids, esters with glycerol | Guinea pig | Not classified |
| 4-methylpentan-2-one | Guinea pig | Not classified |

**Respiratory Sensitisation**

For the component/components, either no data is currently available or the data is not sufficient for classification.

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| acetone | In vivo | Not mutagenic |
| acetone | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| butanone | In Vitro | Not mutagenic |
| toluene | In Vitro | Not mutagenic |
| toluene | In vivo | Not mutagenic |
| tetrahydrofuran | In Vitro | Not mutagenic |
| tetrahydrofuran | In vivo | Not mutagenic |
| methyl acetate | In Vitro | Not mutagenic |
| methyl acetate | In vivo | Not mutagenic |
| Resin acids and rosin acids, esters with glycerol | In Vitro | Not mutagenic |
| 4-methylpentan-2-one | In Vitro | Not mutagenic |
| cyclohexane | In Vitro | Not mutagenic |
| cyclohexane | In vivo | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| acetone | Not specified. | Multiple animal species | Not carcinogenic |
| butanone | Inhalation | Human | Not carcinogenic |
| toluene | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |
| toluene | Ingestion | Rat | Some positive data exist, but the data are not sufficient for classification |
| toluene | Inhalation | Mouse | Some positive data exist, but the data are not sufficient for classification |
| tetrahydrofuran | Inhalation | Multiple animal species | Carcinogenic. |
| 4-methylpentan-2-one | Inhalation | Multiple animal species | Carcinogenic. |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| acetone | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,700 mg/kg/day | 13 weeks |
| acetone | Inhalation | Not classified for development | Rat | NOAEL 5.2 | during |

| | | | | | |
|---|---|---|---|---|---|
| | | | | mg/l | organogenesis |
| butanone | Inhalation | Not classified for development | Rat | LOAEL 8.8 mg/l | during gestation |
| toluene | Inhalation | Not classified for female reproduction | Human | NOAEL Not available | occupational exposure |
| toluene | Inhalation | Not classified for male reproduction | Rat | NOAEL 2.3 mg/l | 1 generation |
| toluene | Ingestion | Toxic to development | Rat | LOAEL 520 mg/kg/day | during gestation |
| toluene | Inhalation | Toxic to development | Human | NOAEL Not available | poisoning and/or abuse |
| tetrahydrofuran | Ingestion | Not classified for female reproduction | Rat | NOAEL 782 mg/kg/day | 2 generation |
| tetrahydrofuran | Ingestion | Not classified for male reproduction | Rat | NOAEL 782 mg/kg/day | 2 generation |
| tetrahydrofuran | Ingestion | Not classified for development | Rat | NOAEL 305 mg/kg/day | 2 generation |
| tetrahydrofuran | Inhalation | Not classified for development | Mouse | NOAEL 1.8 mg/l | during gestation |
| 4-methylpentan-2-one | Inhalation | Not classified for female reproduction | Multiple animal species | NOAEL 8.2 mg/l | 2 generation |
| 4-methylpentan-2-one | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| 4-methylpentan-2-one | Inhalation | Not classified for male reproduction | Multiple animal species | NOAEL 8.2 mg/l | 2 generation |
| 4-methylpentan-2-one | Inhalation | Not classified for development | Mouse | NOAEL 12.3 mg/l | during organogenesis |
| cyclohexane | Inhalation | Not classified for female reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| cyclohexane | Inhalation | Not classified for male reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| cyclohexane | Inhalation | Not classified for development | Rat | NOAEL 6.9 mg/l | 2 generation |

## Target Organ(s)

### Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| acetone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| acetone | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| acetone | Inhalation | immune system | Not classified | Human | NOAEL 1.19 mg/l | 6 hours |
| acetone | Inhalation | liver | Not classified | Guinea pig | NOAEL Not available | |
| acetone | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| butanone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | official classification | NOAEL Not available | |
| butanone | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| butanone | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| butanone | Ingestion | liver | Not classified | Rat | NOAEL Not available | not applicable |
| butanone | Ingestion | kidney and/or | Not classified | Rat | LOAEL | not applicable |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | bladder | | | 1,080 mg/kg | |
| toluene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| toluene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| toluene | Inhalation | immune system | Not classified | Mouse | NOAEL 0.004 mg/l | 3 hours |
| toluene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| tetrahydrofuran | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| tetrahydrofuran | Inhalation | respiratory irritation | May cause respiratory irritation | | NOAEL Not available | |
| tetrahydrofuran | Inhalation | respiratory system | Not classified | Rabbit | NOAEL 2.9 mg/l | 4 hours |
| tetrahydrofuran | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Rat | NOAEL 180 mg/kg | not applicable |
| methyl acetate | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| methyl acetate | Inhalation | respiratory irritation | May cause respiratory irritation | Human and animal | NOAEL Not available | |
| methyl acetate | Inhalation | blindness | Not classified | | NOAEL Not available | |
| methyl acetate | Ingestion | central nervous system depression | May cause drowsiness or dizziness | | NOAEL Not available | |
| 4-methylpentan-2-one | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | LOAEL 0.1 mg/l | 2 hours |
| 4-methylpentan-2-one | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| 4-methylpentan-2-one | Inhalation | vascular system | Not classified | Dog | NOAEL Not available | not available |
| 4-methylpentan-2-one | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Rat | LOAEL 900 mg/kg | not applicable |
| cyclohexane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| cyclohexane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |
| cyclohexane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |

## Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| acetone | Dermal | eyes | Not classified | Guinea pig | NOAEL Not available | 3 weeks |
| acetone | Inhalation | hematopoietic system | Not classified | Human | NOAEL 3 mg/l | 6 weeks |
| acetone | Inhalation | immune system | Not classified | Human | NOAEL 1.19 mg/l | 6 days |
| acetone | Inhalation | kidney and/or bladder | Not classified | Guinea pig | NOAEL 119 mg/l | not available |
| acetone | Inhalation | heart \| liver | Not classified | Rat | NOAEL 45 mg/l | 8 weeks |
| acetone | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 900 mg/kg/day | 13 weeks |
| acetone | Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| acetone | Ingestion | hematopoietic | Not classified | Rat | NOAEL 200 | 13 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | system | | | mg/kg/day | |
| acetone | Ingestion | liver | Not classified | Mouse | NOAEL 3,896 mg/kg/day | 14 days |
| acetone | Ingestion | eyes | Not classified | Rat | NOAEL 3,400 mg/kg/day | 13 weeks |
| acetone | Ingestion | respiratory system | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| acetone | Ingestion | muscles | Not classified | Rat | NOAEL 2,500 mg/kg | 13 weeks |
| acetone | Ingestion | skin \| bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 11,298 mg/kg/day | 13 weeks |
| butanone | Dermal | nervous system | Not classified | Guinea pig | NOAEL Not available | 31 weeks |
| butanone | Inhalation | liver \| kidney and/or bladder \| heart \| endocrine system \| gastrointestinal tract \| bone, teeth, nails, and/or hair \| hematopoietic system \| immune system \| muscles | Not classified | Rat | NOAEL 14.7 mg/l | 90 days |
| butanone | Ingestion | liver | Not classified | Rat | NOAEL Not available | 7 days |
| butanone | Ingestion | nervous system | Not classified | Rat | NOAEL 173 mg/kg/day | 90 days |
| toluene | Inhalation | auditory system \| nervous system \| eyes \| olfactory system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| toluene | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 2.3 mg/l | 15 months |
| toluene | Inhalation | heart \| liver \| kidney and/or bladder | Not classified | Rat | NOAEL 11.3 mg/l | 15 weeks |
| toluene | Inhalation | endocrine system | Not classified | Rat | NOAEL 1.1 mg/l | 4 weeks |
| toluene | Inhalation | immune system | Not classified | Mouse | NOAEL Not available | 20 days |
| toluene | Inhalation | bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 1.1 mg/l | 8 weeks |
| toluene | Inhalation | hematopoietic system \| vascular system | Not classified | Human | NOAEL Not available | occupational exposure |
| toluene | Inhalation | gastrointestinal tract | Not classified | Multiple animal species | NOAEL 11.3 mg/l | 15 weeks |
| toluene | Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 625 mg/kg/day | 13 weeks |
| toluene | Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| toluene | Ingestion | liver \| kidney and/or bladder | Not classified | Multiple animal species | NOAEL 2,500 mg/kg/day | 13 weeks |
| toluene | Ingestion | hematopoietic system | Not classified | Mouse | NOAEL 600 mg/kg/day | 14 days |
| toluene | Ingestion | endocrine system | Not classified | Mouse | NOAEL 105 mg/kg/day | 28 days |
| toluene | Ingestion | immune system | Not classified | Mouse | NOAEL 105 mg/kg/day | 4 weeks |
| tetrahydrofuran | Inhalation | liver | Some positive data exist, but the data are not sufficient for | Rat | NOAEL 0.6 mg/l | 12 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | classification | | | |
| tetrahydrofuran | Inhalation | respiratory system | Not classified | Rat | NOAEL 2.9 mg/l | 12 weeks |
| tetrahydrofuran | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 0.6 mg/l | 105 weeks |
| tetrahydrofuran | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL Not available | 2 weeks |
| methyl acetate | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1.1 mg/l | 28 days |
| methyl acetate | Inhalation | endocrine system \| hematopoietic system \| liver \| immune system \| kidney and/or bladder | Not classified | Rat | NOAEL 6.1 mg/l | 28 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | liver \| heart \| skin \| endocrine system \| bone, teeth, nails, and/or hair \| blood \| bone marrow \| hematopoietic system \| immune system \| muscles \| nervous system \| eyes \| kidney and/or bladder \| respiratory system | Not classified | Rat | NOAEL 5,000 mg/kg/day | 90 days |
| 4-methylpentan-2-one | Inhalation | liver | Not classified | Rat | NOAEL 0.41 mg/l | 13 weeks |
| 4-methylpentan-2-one | Inhalation | heart | Not classified | Multiple animal species | NOAEL 0.8 mg/l | 2 weeks |
| 4-methylpentan-2-one | Inhalation | kidney and/or bladder | Not classified | Multiple animal species | NOAEL 0.4 mg/l | 90 days |
| 4-methylpentan-2-one | Inhalation | respiratory system | Not classified | Multiple animal species | NOAEL 4.1 mg/l | 14 weeks |
| 4-methylpentan-2-one | Inhalation | endocrine system \| hematopoietic system | Not classified | Multiple animal species | NOAEL 0.41 mg/l | 90 days |
| 4-methylpentan-2-one | Inhalation | nervous system | Not classified | Multiple animal species | NOAEL 0.41 mg/l | 13 weeks |
| 4-methylpentan-2-one | Ingestion | endocrine system \| hematopoietic system \| liver \| kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| 4-methylpentan-2-one | Ingestion | heart \| immune system \| muscles \| nervous system \| respiratory system | Not classified | Rat | NOAEL 1,040 mg/kg/day | 120 days |
| cyclohexane | Inhalation | liver | Not classified | Rat | NOAEL 24 mg/l | 90 days |
| cyclohexane | Inhalation | auditory system | Not classified | Rat | NOAEL 1.7 mg/l | 90 days |
| cyclohexane | Inhalation | kidney and/or bladder | Not classified | Rabbit | NOAEL 2.7 mg/l | 10 weeks |
| cyclohexane | Inhalation | hematopoietic system | Not classified | Mouse | NOAEL 24 mg/l | 14 weeks |
| cyclohexane | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 8.6 mg/l | 30 weeks |

## Aspiration Hazard

| Name | Value |
|---|---|

| | |
|---|---|
| toluene | Aspiration hazard |
| 4-methylpentan-2-one | Some positive data exist, but the data are not sufficient for classification |
| cyclohexane | Aspiration hazard |

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

### 11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

## SECTION 12: Ecological information

**The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.**

### 12.1. Toxicity

No product test data available.

| Material | Identifier(s) | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| acetone | 67-64-1 | Algae or other aquatic plants | Experimental | 96 hours | EC50 | 11,493 mg/l |
| acetone | 67-64-1 | Invertebrate | Experimental | 24 hours | LC50 | 2,100 mg/l |
| acetone | 67-64-1 | Rainbow trout | Experimental | 96 hours | LC50 | 5,540 mg/l |
| acetone | 67-64-1 | Water flea | Experimental | 21 days | NOEC | 1,000 mg/l |
| acetone | 67-64-1 | Bacteria | Experimental | 16 hours | NOEC | 1,700 mg/l |
| acetone | 67-64-1 | Redworm | Experimental | 48 hours | LC50 | >100 |
| butanone | 78-93-3 | Fathead minnow | Experimental | 96 hours | LC50 | 2,993 mg/l |
| butanone | 78-93-3 | Green algae | Experimental | 96 hours | ErC50 | 2,029 mg/l |
| butanone | 78-93-3 | Water flea | Experimental | 48 hours | EC50 | 308 mg/l |
| butanone | 78-93-3 | Green algae | Experimental | 96 hours | ErC10 | 1,289 mg/l |
| butanone | 78-93-3 | Water flea | Experimental | 21 days | NOEC | 100 mg/l |
| butanone | 78-93-3 | Bacteria | Experimental | 16 hours | LOEC | 1,150 mg/l |
| Acrylic polymer | Trade Secret | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| tetrahydrofuran | 109-99-9 | Activated sludge | Experimental | 3 hours | IC50 | 460 mg/l |
| tetrahydrofuran | 109-99-9 | Fathead minnow | Experimental | 96 hours | LC50 | 2,160 mg/l |
| tetrahydrofuran | 109-99-9 | Water flea | Experimental | 48 hours | LC50 | 3,485 mg/l |
| tetrahydrofuran | 109-99-9 | Fathead minnow | Experimental | 33 days | NOEC | 216 mg/l |
| toluene | 108-88-3 | Coho Salmon | Experimental | 96 hours | LC50 | 5.5 mg/l |

| | | | | | | |
|---|---|---|---|---|---|---|
| toluene | 108-88-3 | Grass Shrimp | Experimental | 96 hours | LC50 | 9.5 mg/l |
| toluene | 108-88-3 | Green algae | Experimental | 72 hours | EC50 | 12.5 mg/l |
| toluene | 108-88-3 | Leopard frog | Experimental | 9 days | LC50 | 0.39 mg/l |
| toluene | 108-88-3 | Pink Salmon | Experimental | 96 hours | LC50 | 6.41 mg/l |
| toluene | 108-88-3 | Water flea | Experimental | 48 hours | EC50 | 3.78 mg/l |
| toluene | 108-88-3 | Coho Salmon | Experimental | 40 days | NOEC | 1.39 mg/l |
| toluene | 108-88-3 | Diatom | Experimental | 72 hours | NOEC | 10 mg/l |
| toluene | 108-88-3 | Water flea | Experimental | 7 days | NOEC | 0.74 mg/l |
| toluene | 108-88-3 | Activated sludge | Experimental | 12 hours | IC50 | 292 mg/l |
| toluene | 108-88-3 | Bacteria | Experimental | 16 hours | NOEC | 29 mg/l |
| toluene | 108-88-3 | Bacteria | Experimental | 24 hours | EC50 | 84 mg/l |
| toluene | 108-88-3 | Redworm | Experimental | 28 days | LC50 | >150 mg per kg of bodyweight |
| toluene | 108-88-3 | Soil microbes | Experimental | 28 days | NOEC | <26 mg/kg (Dry Weight) |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Green algae | Analogous Compound | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Rainbow trout | Analogous Compound | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Water flea | Analogous Compound | 48 hours | EL50 | 27 mg/l |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Green algae | Analogous Compound | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| methyl acetate | 79-20-9 | Green algae | Experimental | 72 hours | ErC50 | >120 mg/l |
| methyl acetate | 79-20-9 | Water flea | Experimental | 48 hours | EC50 | 1,026.7 mg/l |
| methyl acetate | 79-20-9 | Zebra Fish | Experimental | 96 hours | LC50 | 250 mg/l |
| methyl acetate | 79-20-9 | Green algae | Experimental | 72 hours | NOEC | 120 mg/l |
| methyl acetate | 79-20-9 | Bacteria | Experimental | 16 hours | EC50 | 6,000 mg/l |
| cyclohexane | 110-82-7 | Fathead minnow | Experimental | 96 hours | LC50 | 4.53 mg/l |
| cyclohexane | 110-82-7 | Water flea | Experimental | 48 hours | EC50 | 0.9 mg/l |
| cyclohexane | 110-82-7 | Bacteria | Experimental | 24 hours | IC50 | 97 mg/l |
| 4-methylpentan-2-one | 108-10-1 | Green algae | Experimental | 96 hours | EC50 | 400 mg/l |
| 4-methylpentan-2-one | 108-10-1 | Water flea | Experimental | 48 hours | EC50 | >200 mg/l |
| 4-methylpentan-2-one | 108-10-1 | Zebra Fish | Experimental | 96 hours | LC50 | >179 mg/l |
| 4-methylpentan-2-one | 108-10-1 | Fathead minnow | Experimental | 32 days | NOEC | 56.2 mg/l |
| 4-methylpentan-2-one | 108-10-1 | Water flea | Experimental | 21 days | NOEC | 78 mg/l |
| 4-methylpentan-2-one | 108-10-1 | Activated sludge | Experimental | 30 minutes | EC50 | >1,000 |

## 12.2. Persistence and degradability

| Material | Identifier(s) | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| acetone | 67-64-1 | Experimental Biodegradation | 28 days | BOD | 78 %BOD/ThOD | OECD 301D - Closed bottle test |
| acetone | 67-64-1 | Experimental Photolysis | | Photolytic half-life (in air) | 147 days (t 1/2) | |
| butanone | 78-93-3 | Experimental Biodegradation | 28 days | BOD | 98 %BOD/ThOD | OECD 301D - Closed bottle test |
| Acrylic polymer | Trade Secret | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| tetrahydrofuran | 109-99-9 | Experimental Biodegradation | 28 days | BOD | 39 %BOD/ThOD | |
| toluene | 108-88-3 | Experimental Biodegradation | 20 days | BOD | 80 %BOD/ThOD | APHA Std Meth Water/Wastewater |
| toluene | 108-88-3 | Experimental Photolysis | | Photolytic half-life (in air) | 5.2 days (t 1/2) | |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Analogous Compound Biodegradation | 28 days | CO2 evolution | 0 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| methyl acetate | 79-20-9 | Experimental Biodegradation | 28 days | BOD | 70 %BOD/ThOD | OECD 301D - Closed bottle test |
| methyl acetate | 79-20-9 | Experimental Aquatic Inherent Biodegrad. | 6 days | Dissolv. Organic Carbon Deplet | >95 %removal of DOC | OECD 302B Zahn-Wellens/EVPA |
| methyl acetate | 79-20-9 | Experimental Photolysis | | Photolytic half-life (in air) | 94 days (t 1/2) | |
| methyl acetate | 79-20-9 | Experimental Hydrolysis | | Hydrolytic half-life | 44 days (t 1/2) | |
| cyclohexane | 110-82-7 | Experimental Biodegradation | 28 days | BOD | 77 %BOD/ThOD | OECD 301F - Manometric respirometry |
| cyclohexane | 110-82-7 | Experimental Photolysis | | Photolytic half-life (in air) | 4.3 days (t 1/2) | |
| 4-methylpentan-2-one | 108-10-1 | Experimental Biodegradation | 28 days | BOD | 83 %BOD/ThOD | OECD 301F - Manometric respirometry |
| 4-methylpentan-2-one | 108-10-1 | Experimental Photolysis | | Photolytic half-life (in air) | 2.3 days (t 1/2) | |

## 12.3 : Bioaccumulative potential

| Material | Identifier(s) | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| acetone | 67-64-1 | Experimental BCF - Other | | Bioaccumulation factor | 0.65 | |
| acetone | 67-64-1 | Experimental Bioconcentration | | Log Kow | -0.24 | |
| butanone | 78-93-3 | Experimental Bioconcentration | | Log Kow | 0.3 | OECD 117 log Kow HPLC method |
| Acrylic polymer | Trade Secret | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| tetrahydrofuran | 109-99-9 | Experimental Bioconcentration | | Log Kow | 0.45 | |
| toluene | 108-88-3 | Experimental BCF - Other | 72 hours | Bioaccumulation factor | 90 | |
| toluene | 108-88-3 | Experimental Bioconcentration | | Log Kow | 2.73 | |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| methyl acetate | 79-20-9 | Experimental Bioconcentration | | Log Kow | 0.18 | |
| cyclohexane | 110-82-7 | Experimental BCF - Fish | 56 days | Bioaccumulation factor | 129 | OECD305-Bioconcentration |
| cyclohexane | 110-82-7 | Experimental Bioconcentration | | Log Kow | 3.44 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4-methylpentan-2-one | 108-10-1 | Experimental Bioconcentration | | Log Kow | 1.9 | OECD 117 log Kow HPLC method |

**12.4. Mobility in soil**

| Material | Identifier(s) | Test type | Study Type | Test result | Protocol |
|---|---|---|---|---|---|
| acetone | 67-64-1 | Modeled Mobility in Soil | Koc | 9.7 l/kg | Episuite™ |
| toluene | 108-88-3 | Experimental Mobility in Soil | Koc | 37-160 l/kg | |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Modeled Mobility in Soil | Koc | >1000 l/kg | Episuite™ |
| methyl acetate | 79-20-9 | Experimental Mobility in Soil | Koc | 1.5 l/kg | OECD 121 Estim. of Koc by HPLC |
| cyclohexane | 110-82-7 | Modeled Mobility in Soil | Koc | 970 l/kg | Episuite™ |
| 4-methylpentan-2-one | 108-10-1 | Modeled Mobility in Soil | Koc | 150 l/kg | Episuite™ |

**12.5. Results of the PBT and vPvB assessment**

This material does not contain any substances that are assessed to be a PBT or vPvB

**12.6. Endocrine disrupting properties**

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

**12.7. Other adverse effects**
No information available.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

**EU waste code (product as sold)**

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* Paint, inks, adhesives and resins containing dangerous substances

## SECTION 14: Transportation information

| | Ground Transport (ADR) | Air Transport (IATA) | Marine Transport (IMDG) |
|---|---|---|---|

| | | | |
|---|---|---|---|
| **14.1 - UN Number or ID number** | UN1993 | UN1993 | UN1993 |
| **14.2 UN proper shipping name** | FLAMMABLE LIQUID, N.O.S.(METHYL ETHYL KETONE) | WASTE FLAMMABLE LIQUID, N.O.S.(METHYL ETHYL KETONE) | FLAMMABLE LIQUID, N.O.S.(METHYL ETHYL KETONE) |
| **14.3 Transport hazard class(es)** | 3 | 3 | 3 |
| **14.4 Packing group** | II | II | II |
| **14.5 Environmental hazards** | Not Environmentally Hazardous | Not applicable. | Not a Marine Pollutant |
| **14.6 Special precautions for user** | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. |
| **14.7 Marine Transport in bulk according to IMO instruments** | No data available. | No data available. | No data available. |
| **Control Temperature** | No data available. | No data available. | No data available. |
| **Emergency Temperature** | No data available. | No data available. | No data available. |
| **ADR Classification Code** | F1 | Not applicable. | Not applicable. |
| **IMDG Segregation Code** | Not applicable. | Not applicable. | NONE |

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

## SECTION 15: Regulatory information

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

**Carcinogenicity**

| Ingredient | Identifier(s) | Classification | Regulation |
|---|---|---|---|
| 4-methylpentan-2-one | 108-10-1 | Carc. 2 | Regulation (EC) No. 1272/2008, Table 3.1 |
| 4-methylpentan-2-one | 108-10-1 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| tetrahydrofuran | 109-99-9 | Carc. 2 | Regulation (EC) No. 1272/2008, Table 3.1 |
| tetrahydrofuran | 109-99-9 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| toluene | 108-88-3 | Gr. 3: Not classifiable | International Agency for Research on Cancer |

**Restrictions on the manufacture, placing on the market and use:**
The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

| Ingredient | Identifier(s) |
|---|---|
| cyclohexane | 110-82-7 |
| toluene | 108-88-3 |

Restriction status: listed in REACH Annex XVII
Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

**Regulation (EU) 2019/1148 (marketing and use of explosive precursors)**
This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Please see your local legislation.

**Global inventory status**
Contact 3M for more information.

**DIRECTIVE 2012/18/EU**
Seveso hazard categories, Annex 1, Part 1

| Hazard Categories | Qualifying quantity (tonnes) for the application of | |
|---|---|---|
| | Lower-tier requirements | Upper-tier requirements |
| P5c FLAMMABLE LIQUIDS* | 5000 | 50000 |

*If maintained at a temperature above its boiling point or if particular processing conditions, such as high pressure or high temperature, may create major-accident hazards, P5a or P5b FLAMMABLE LIQUIDS may apply

Seveso named dangerous substances, Annex 1, Part 2
None

**Regulation (EU) No 649/2012**
No chemicals listed

**15.2. Chemical Safety Assessment**
A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

## SECTION 16: Other information

**List of relevant H statements**

| | |
|---|---|
| EUH019 | May form explosive peroxides. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| H225 | Highly flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |

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| H351 | Suspected of causing cancer. |
| 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. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Revision information:**
EU Section 14 - Table Data information was added.
EU Section 14 - Table Headers information was added.
CLP: Ingredient table information was modified.
Label: CLP Precautionary - Prevention information was modified.
Label: Graphic information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 6: Accidental release personal information information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 9: Vapour pressure value information was added.
Section 9: Vapour pressure value information was deleted.
Section 12: Component ecotoxicity information information was modified.
Section 12: Mobility in soil information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 14 Classification Code – Main Heading information was deleted.
Section 14 Classification Code – Regulation Data information was deleted.
Section 14 Control Temperature – Main Heading information was deleted.
Section 14 Control Temperature – Regulation Data information was deleted.
Section 14 Emergency Temperature – Main Heading information was deleted.
Section 14 Emergency Temperature – Regulation Data information was deleted.
Section 14 Hazard Class + Sub Risk – Main Heading information was deleted.
Section 14 Hazard Class + Sub Risk – Regulation Data information was deleted.
Section 14 Other Dangerous Goods – Main Heading information was deleted.
Section 14 Other Dangerous Goods – Regulation Data information was deleted.
Section 14 Packing Group – Main Heading information was deleted.
Section 14 Packing Group – Regulation Data information was deleted.
Section 14 Proper Shipping Name information was deleted.
Section 14 Regulations – Main Headings information was deleted.
Section 14 Segregation – Regulation Data information was deleted.
Section 14 Segregation Code – Main Heading information was deleted.
Section 14 Special Precautions – Main Heading information was deleted.
Section 14 Special Precautions – Regulation Data information was deleted.
Section 14 Transport in bulk – Regulation Data information was deleted.
Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.
Section 14 UN Number Column data information was deleted.
Section 14 UN Number information was deleted.

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