# Safety Data Sheet



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|---|---|---|---|
| **Document group:** | 21-4307-1 | **Version number:** | 6.00 |
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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

**1.1. Product identifier**
3M™ Adhesion Promoter K520UV

**Product Identification Numbers**
70-0711-0126-8

7000052368

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

**Identified uses**
Automotive - Industrial/Professional use

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

| | |
|---|---|
| **Address:** | 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT. |
| **Telephone:** | +44 (0)1344 858 000 |
| **E Mail:** | tox.uk@mmm.com |
| **Website:** | www.3M.com/uk |

**1.4. Emergency telephone number**
+44 (0)1344 858 000

## SECTION 2: Hazard identification

**2.1. Classification of the substance or mixture**
**The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain**

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
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Reproductive Toxicity, Category 2 - Repr. 2; H361d
Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336
Aspiration Hazard, Category 1 - Asp. Tox. 1; H304
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**
**The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain**

**SIGNAL WORD**
DANGER.

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

**Pictograms**

| Ingredient | CAS Nbr | EC No. | % by Wt |
|---|---|---|---|
| toluene | 108-88-3 | 203-625-9 | 85 - 95 |

**HAZARD STATEMENTS:**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H361d | Suspected of damaging the unborn child. |
| H336 | May cause drowsiness or dizziness. |
| H304 | May be fatal if swallowed and enters airways. |
| H373 | May cause damage to organs through prolonged or repeated exposure: nervous system \| sensory organs. |
| 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. |
| P260A | Do not breathe vapours. |
| P280K | Wear protective gloves and respiratory protection. |

**Response:**

| | |
|---|---|
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor. |
| P331 | Do NOT induce vomiting. |
| P370 + P378 | In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish. |

2% of the mixture consists of components of unknown acute oral toxicity.

Contains 2% of components with unknown hazards to the aquatic environment.

**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], as amended for GB |
|---|---|---|---|
| toluene | (CAS-No.) 108-88-3<br>(EC-No.) 203-625-9 | 85 - 95 | 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 |
| propan-2-ol | (CAS-No.) 67-63-0<br>(EC-No.) 200-661-7 | 1 - 10 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |
| POLYAMIDO AMIDE | Trade Secret | 1 - 5 | Substance not classified as hazardous |
| 2,5-Furandione, reaction products with polypropylene, chlorinated | (CAS-No.) 68609-36-9 | 1 - 5 | Substance not classified as hazardous |
| ethylbenzene | (CAS-No.) 100-41-4<br>(EC-No.) 202-849-4 | < 0.5 | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>Asp. Tox. 1, H304<br>STOT RE 2, H373<br>Aquatic Chronic 3, H412 |

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

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**
Do not induce vomiting. Get immediate medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**
The most important symptoms and effects based on the GB CLP classification include:
Irritation to the skin (localized redness, swelling, itching, and dryness). Aspiration pneumonitis (coughing, gasping, choking, burning of the mouth, and difficulty breathing). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects. See Section 11 for additional details.

**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 |
|---|---|
| Carbon monoxide | During combustion. |
| Carbon dioxide. | During combustion. |
| Irritant vapours or gases. | 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. 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.) Keep away from reactive metals (eg. Aluminium, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard. 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 to prevent contamination with water or air. If contamination is suspected, do not reseal container. 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 | CAS Nbr | Agency | Limit type | Additional comments |
|---|---|---|---|---|
| ethylbenzene | 100-41-4 | UK HSE | TWA:441 mg/m3(100 ppm);STEL:552 mg/m3(125 ppm) | SKIN |
| toluene | 108-88-3 | UK HSE | TWA: 191 mg/m³ (50 ppm); STEL: 384 mg/m³ (100 ppm) | SKIN |
| propan-2-ol | 67-63-0 | UK HSE | TWA:999 mg/m³(400 ppm);STEL:1250 mg/m³(500 ppm) | |

UK HSE : UK Health and Safety Commission
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.

**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 166

**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 |
|---|---|---|
| Polyethylene | >0.30 | =>8 hours |
| Polyvinyl alcohol (PVA). | >0.30 | =>8 hours |
| 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

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 type A

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | Tan |
| **Odor** | Sharp Solvent |
| **Odour threshold** | *No data available.* |
| **Melting point/freezing point** | *Not applicable.* |
| **Boiling point/boiling range** | >=82 ºC [*Details:*Initial (Propan-2-ol)] |
| **Flammability** | Flammable Liquid: Category 2. |
| **Flammable Limits(LEL)** | 1 % volume [*Test Method:*Estimated] [*Details:*(Toluene)] |
| **Flammable Limits(UEL)** | 7 % volume [*Test Method:*Estimated] [*Details:*(Toluene)] |
| **Flash point** | 5 ºC [*Test Method:*Tagliabue closed cup] [*Details:*Based on Toluene.] |
| **Autoignition temperature** | >=486 ºC [*Details:*Based on Toluene.] |
| **Decomposition temperature** | *No data available.* |
| **pH** | *substance/mixture is non-soluble (in water)* |
| **Kinematic Viscosity** | 5.8 mm²/sec |
| **Water solubility** | Negligible |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Vapour pressure** | 3,066.4 Pa [@ 20 ºC ] [*Test Method:*Estimated] |
| **Density** | 0.86 g/cm3 |
| **Relative density** | 0.86 [*Ref Std:*WATER=1] |
| **Relative Vapour Density** | 3.1 [*Test Method:*Estimated] |
| **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.* |
| **Molecular weight** | *No data available.* |
| **Percent volatile** | 96.5 % weight [*Details:*Calculated] |

## 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.
High shear and high temperature conditions
Sparks and/or flames.
Temperatures above the boiling point.

**10.5 Incompatible materials**
Strong oxidising agents.

Aluminium or magnesium powder and high/shear temperature conditions.
Alkali and alkaline earth metals.
Aluminium
Finely divided active metals
Metal powder
Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.
Reactive metals

**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 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 3M assessments.**

**11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.**

**Signs and Symptoms of Exposure**

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

**Inhalation**
May be harmful if inhaled. 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**
Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic Skin Reaction (non-photo induced) in sensitive people: Signs/symptoms may include redness, swelling, blistering, and itching.

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

**Ingestion**
Chemical (aspiration) pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish coloured skin (cyanosis), and may be fatal. 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 >20 - =50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 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 |
| propan-2-ol | Dermal | Rabbit | LD50 12,870 mg/kg |
| propan-2-ol | Inhalation-Vapour (4 hours) | Rat | LC50 72.6 mg/l |
| propan-2-ol | Ingestion | Rat | LD50 4,710 mg/kg |
| 2,5-Furandione, reaction products with polypropylene, chlorinated | Dermal | Guinea pig | LD50 > 1,000 mg/kg |
| 2,5-Furandione, reaction products with polypropylene, chlorinated | Ingestion | Rat | LD50 > 3,200 mg/kg |
| ethylbenzene | Dermal | Rabbit | LD50 15,433 mg/kg |
| ethylbenzene | Inhalation-Vapour (4 hours) | Rat | LC50 17.4 mg/l |
| ethylbenzene | Ingestion | Rat | LD50 4,769 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| toluene | Rabbit | Irritant |
| propan-2-ol | Multiple animal species | No significant irritation |
| 2,5-Furandione, reaction products with polypropylene, chlorinated | Guinea pig | No significant irritation |
| ethylbenzene | Rabbit | Mild irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| toluene | Rabbit | Moderate irritant |
| propan-2-ol | Rabbit | Severe irritant |
| 2,5-Furandione, reaction products with polypropylene, chlorinated | Professional judgement | Mild irritant |

| | | |
|---|---|---|
| ethylbenzene | Rabbit | Moderate irritant |

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| toluene | Guinea pig | Not classified |
| propan-2-ol | Guinea pig | Not classified |
| ethylbenzene | Human | 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 |
|---|---|---|
| toluene | In Vitro | Not mutagenic |
| toluene | In vivo | Not mutagenic |
| propan-2-ol | In Vitro | Not mutagenic |
| propan-2-ol | In vivo | Not mutagenic |
| ethylbenzene | In vivo | Not mutagenic |
| ethylbenzene | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| 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 |
| propan-2-ol | Inhalation | Rat | Some positive data exist, but the data are not sufficient for classification |
| ethylbenzene | Inhalation | Multiple animal species | Carcinogenic. |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| 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 |
| propan-2-ol | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | 2 generation |
| propan-2-ol | Ingestion | Not classified for male reproduction | Rat | NOAEL 500 mg/kg/day | 2 generation |
| propan-2-ol | Ingestion | Not classified for development | Rat | NOAEL 400 mg/kg/day | during organogenesis |
| propan-2-ol | Inhalation | Not classified for development | Rat | LOAEL 9 mg/l | during gestation |
| ethylbenzene | Inhalation | Not classified for development | Rat | NOAEL 4.3 mg/l | premating & during |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | gestation |

## Target Organ(s)

### Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| 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 |
| propan-2-ol | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| propan-2-ol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| propan-2-ol | Inhalation | auditory system | Not classified | Guinea pig | NOAEL 13.4 mg/l | 24 hours |
| propan-2-ol | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| ethylbenzene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| ethylbenzene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |
| ethylbenzene | 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 |
|---|---|---|---|---|---|---|
| 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 | Not classified | Multiple | NOAEL | 13 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | bladder | | animal species | 2,500 mg/kg/day | |
| 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 |
| propan-2-ol | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 12.3 mg/l | 24 months |
| propan-2-ol | Inhalation | nervous system | Not classified | Rat | NOAEL 12 mg/l | 13 weeks |
| propan-2-ol | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 400 mg/kg/day | 12 weeks |
| ethylbenzene | Inhalation | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1.1 mg/l | 2 years |
| ethylbenzene | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Mouse | NOAEL 1.1 mg/l | 103 weeks |
| ethylbenzene | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 3.4 mg/l | 28 days |
| ethylbenzene | Inhalation | auditory system | Not classified | Rat | NOAEL 2.4 mg/l | 5 days |
| ethylbenzene | Inhalation | endocrine system | Not classified | Mouse | NOAEL 3.3 mg/l | 103 weeks |
| ethylbenzene | Inhalation | gastrointestinal tract | Not classified | Rat | NOAEL 3.3 mg/l | 2 years |
| ethylbenzene | Inhalation | bone, teeth, nails, and/or hair \| muscles | Not classified | Multiple animal species | NOAEL 4.2 mg/l | 90 days |
| ethylbenzene | Inhalation | heart \| immune system \| respiratory system | Not classified | Multiple animal species | NOAEL 3.3 mg/l | 2 years |
| ethylbenzene | Ingestion | liver \| kidney and/or bladder | Not classified | Rat | NOAEL 680 mg/kg/day | 6 months |

**Aspiration Hazard**

| Name | Value |
|---|---|
| toluene | Aspiration hazard |
| ethylbenzene | 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 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 | CAS # | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| 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) |
| propan-2-ol | 67-63-0 | Bacteria | Experimental | 16 hours | LOEC | 1,050 mg/l |
| propan-2-ol | 67-63-0 | Green algae | Experimental | 72 hours | EC50 | >1,000 mg/l |
| propan-2-ol | 67-63-0 | Invertebrate | Experimental | 24 hours | LC50 | >10,000 mg/l |
| propan-2-ol | 67-63-0 | Medaka | Experimental | 96 hours | LC50 | >100 mg/l |
| propan-2-ol | 67-63-0 | Water flea | Experimental | 48 hours | EC50 | >1,000 mg/l |
| propan-2-ol | 67-63-0 | Green algae | Experimental | 72 hours | NOEC | 1,000 mg/l |
| propan-2-ol | 67-63-0 | Water flea | Experimental | 21 days | NOEC | 100 mg/l |
| 2,5-Furandione, reaction products with polypropylene, chlorinated | 68609-36-9 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| POLYAMIDO AMIDE | Trade Secret | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| ethylbenzene | 100-41-4 | Activated sludge | Experimental | 49 hours | EC50 | 130 mg/l |
| ethylbenzene | 100-41-4 | Atlantic Silverside | Experimental | 96 hours | LC50 | 5.1 mg/l |
| ethylbenzene | 100-41-4 | Green algae | Experimental | 96 hours | EC50 | 3.6 mg/l |
| ethylbenzene | 100-41-4 | Mysid Shrimp | Experimental | 96 hours | LC50 | 2.6 mg/l |
| ethylbenzene | 100-41-4 | Rainbow trout | Experimental | 96 hours | LC50 | 4.2 mg/l |
| ethylbenzene | 100-41-4 | Water flea | Experimental | 48 hours | EC50 | 1.8 mg/l |
| ethylbenzene | 100-41-4 | Water flea | Experimental | 7 days | NOEC | 0.96 mg/l |

### 12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 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) | |
| propan-2-ol | 67-63-0 | Experimental Biodegradation | 14 days | BOD | 86 %BOD/ThOD | OECD 301C - MITI test (I) |
| 2,5-Furandione, reaction products with polypropylene, chlorinated | 68609-36-9 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| POLYAMIDO AMIDE | Trade Secret | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| ethylbenzene | 100-41-4 | Experimental Biodegradation | 28 days | CO2 evolution | 70-80 %CO2 evolution/THCO2 evolution | ISO 14593 Inorg C Headspace |
| ethylbenzene | 100-41-4 | Experimental Photolysis | | Photolytic half-life (in air) | 4.26 days (t 1/2) | |

**12.3 : Bioaccumulative potential**

| Material | Cas No. | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| toluene | 108-88-3 | Experimental BCF - Other | 72 hours | Bioaccumulation factor | 90 | |
| toluene | 108-88-3 | Experimental Bioconcentration | | Log Kow | 2.73 | |
| propan-2-ol | 67-63-0 | Experimental Bioconcentration | | Log Kow | 0.05 | |
| 2,5-Furandione, reaction products with polypropylene, chlorinated | 68609-36-9 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| POLYAMIDO AMIDE | Trade Secret | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| ethylbenzene | 100-41-4 | Experimental BCF - Fish | 42 days | Bioaccumulation factor | 1 | |

**12.4. Mobility in soil**

| Material | Cas No. | Test type | Study Type | Test result | Protocol |
|---|---|---|---|---|---|
| toluene | 108-88-3 | Experimental Mobility in Soil | Koc | 37-160 l/kg | |

**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. Other adverse effects**

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

## 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** | UN1294 | UN1294 | UN1294 |
| **14.2 UN proper shipping name** | TOLUENE SOLUTION | TOLUENE SOLUTION | TOLUENE SOLUTION |
| **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 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code** | 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 | CAS Nbr | Classification | Regulation |
|---|---|---|---|
| ethylbenzene | 100-41-4 | 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 to Annex XVII of regulation (EC) 1907/2006, as amended for GB, with regard to restrictions on the manufacture, placing on the market and use when present in certain dangerous conditions. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

| Ingredient | CAS Nbr |
|---|---|
| toluene | 108-88-3 |

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

**Global inventory status**
Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

**COMAH Regulation, SI 2015/483**
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

| Dangerous Substances | Identifier(s) | Qualifying quantity (tonnes) for the application of | |
|---|---|---|---|
| | | Lower-tier requirements | Upper-tier requirements |
| ethylbenzene | 100-41-4 | 10 | 50 |
| propan-2-ol | 67-63-0 | 10 | 50 |
| toluene | 108-88-3 | 10 | 50 |

**Regulation (EU) No 649/2012, as amended for GB**
No chemicals listed

**15.2. Chemical Safety Assessment**
A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

## SECTION 16: Other information

**List of relevant H statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H361d | Suspected of damaging the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure: nervous system \| sensory organs. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Revision information:**
GB Section 02: CLP Ingredient table information was added.
GB Section 02: Other hazards phrase information was added.
GB Section 04: First Aid - Symptoms and Effects (GB CLP) information was added.
GB Section 04: Information on toxicological effects information was added.
GB Section 12: Classification Warning information was added.
GB Section 15: Carcinogenicity information information was added.
GB Section 15: Chemical Safety Assessment information was added.
GBSDS Section 14 Transport in bulk - Main Heading information was added.
GBSDS Section 14 UN Number information was added.
Industrial Use of Coatings: Section 16: Annex information was deleted.
Professional Use of Coatings: Section 16: Annex information was deleted.
CLP: Ingredient table information was deleted.
Label: CLP Percent Unknown information was deleted.
Label: CLP Precautionary - Response information was modified.
Section 02: Label Elements: GB Percent Unknown information was added.
Section 2: Other hazards phrase information was deleted.
Section 3: Composition/ Information of ingredients table information was added.
Section 3: Composition/ Information of ingredients table information was deleted.
Section 04: First Aid - Symptoms and Effects (CLP) information was deleted.
Section 04: Information on toxicological effects information was deleted.
Section 5: Hazardous combustion products table information was modified.
Section 6: Accidental release personal information information was modified.
Section 7: Conditions safe storage information was modified.
Section 8: 8.2. Exposure controls information information was deleted.
Section 8: 8.2.3. Environmental exposure controls information information was deleted.
Section 8: DNEL table row information was deleted.
Section 8: Eye/face protection information information was modified.
Section 8: glove data value information was modified.
Section 8: Occupational exposure limit table information was modified.
OEL Reg Agency Desc information was modified.
Section 8: PNEC table row information was deleted.
Section 8: Respiratory protection - recommended respirators information information was modified.
Section 9: Flammability (solid, gas) information information was deleted.
Section 09: Flammability information information was added.
Section 09: Odor information was modified.
Section 09: Particle Characteristics N/A information was added.
Section 9: Vapour density value information was modified.

Section 11: Classification disclaimer information was deleted.
Section 11: GB Classification disclaimer information was added.
Section 11: GB No endocrine disruptor information available warning information was added.
Section 11: Health Effects - Skin information information was modified.
Section 11: No endocrine disruptor information available warning information was deleted.
Section 11: Target Organs - Repeated Table information was modified.
Section 12: 12.6. Endocrine Disrupting Properties information was deleted.
Section 12: 12.6. Other adverse effects information was added.
Section 12: 12.7. Other adverse effects information was deleted.
Section 12: Classification Warning information was deleted.
Section 12: Component ecotoxicity information information was modified.
Prints No Data if Adverse effects information is not present information was deleted.
Section 12: No endocrine disruptor information available warning information was added.
Section 12: No endocrine disruptor information available warning information was deleted.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 13: Standard Phrase Category Waste GHS information was modified.
Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.
Section 14 UN Number information was deleted.
Section 15: Carcinogenicity information information was deleted.
Section 15: Chemical Safety Assessment information was deleted.
Section 15: Seveso Hazard Category Text information was added.
Section 15: Seveso Hazard Category Text information was deleted.
Section 15: Seveso Substance Text information was added.
Section 15: Seveso Substance Text information was deleted.
Annex: Prediction of exposure statement information was deleted.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was added.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was deleted.
Section 16: Web address information was added.
Section 16: Web address information was deleted.

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**3M SDSs for Great Britain are available at www.3M.com/uk**
For Northern Ireland documents, please contact your 3M representative to obtain a copy.