

## Safety Data Sheet

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Revision date:	19/11/2024	Supersedes date:	13/07/2020	
Transportation version number:				

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

# IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

## 1.1. Product identifier

3M Scotch-Weld<sup>™</sup> Structural Adhesive Primer EC-1945 B/A

**Product Identification Numbers** 62-2628-6401-0

7000021286

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

## **Identified uses**

Primer

## 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 000E Mail:tox.uk@mmm.com

Website: www.3M.com/uk

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

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the MSDSs for components of this product are:

07-5036-4, 07-5032-3

## **TRANSPORTATION INFORMATION**

Refer to section 14 of the kit components for transport information.

## **KIT LABEL**

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

## **CLASSIFICATION:**

Flammable Liquid, Category 2 - Flam. Liq. 2; H225 Acute Toxicity, Category 4 - Acute Tox. 4; H302 Acute Toxicity, Category 4 - Acute Tox. 4; H332 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315 Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318 Skin Sensitization, Category 1 - Skin Sens. 1; H317 Carcinogenicity, Category 1B - Carc. 1B; H350 Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335 Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400 Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

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) |GHS05 (Corrosion) |GHS07 (Exclamation mark) |GHS08 (Health Hazard) |GHS09 (Environment) |

## Pictograms

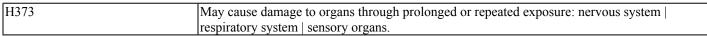


## **Contains:**

ethylbenzene; toluene; n-butyl acetate; xylene; calcium chromate; N-(3-(Trimethoxysilyl)propyl)ethylenediamine; propan-2-ol; butan-1-ol; butanone; 2,4,6-tris(dimethylaminomethyl)phenol

## HAZARD STATEMENTS:

H225	Highly flammable liquid and vapour.
H302 + H332	Harmful if swallowed or if inhaled.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.



H410

Very toxic to aquatic life with long lasting effects.

## PRECAUTIONARY STATEMENTS

Prevention:	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260A	Do not breathe vapours.
P280I	Wear protective gloves, eye/face protection, and respiratory protection.
<b>Response:</b> P305 + P351 + P338 P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.

## SUPPLEMENTAL INFORMATION:

## **Supplemental Hazard Statements:**

EUH211

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

## **Supplemental Precautionary Statements:**

Restricted to professional users.

Refer to Safety Data Sheet for component % unknown values (www.3M.com/msds).

## **Revision information:**

GB Kit Information: CLP Percent Unknown information was added.

GB Label: CLP Ingredients - kit components information was added.

Label: CLP Percent Unknown - Kit information was deleted.

Kit Information: CLP Target Organ Hazard Statement information was deleted.

Label: CLP Ingredients - kit components information was deleted.

Section 02: CLP Physical and Health Hazard Statements information was modified.

Label: CLP Classification information was modified.

Label: CLP Precautionary - Disposal information was deleted.

Label: CLP Precautionary - Prevention information was modified.

Label: CLP Precautionary - Response information was modified.

Label: CLP Supplemental Hazard Statements information was added.

Label: CLP Supplemental Precautionary Statements information was deleted.

Label: CLP Target Organ Hazard Statement information was added.

Section 02: SDS Elements: CLP Supplemental Precautionary Statements information was added.



## Safety Data Sheet

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Document group:	07-5032-3	Version number:	16.03
<b>Revision date:</b>	30/11/2023	Supersedes date:	08/02/2023

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 Scotch-Weld<sup>™</sup> Structural Adhesive Primer EC-1945 B/A, Part A

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

## Identified uses

Accelerator for 2-Part Primer

## **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 000E Mail:tox.uk@mmm.comWebsite: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.

The aspiration hazard classification is not required due to the product's viscosity.

## CLASSIFICATION:

Flammable Liquid, Category 2 - Flam. Liq. 2; H225 Acute Toxicity, Category 4 - Acute Tox. 4; H332 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315 Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318 Skin Sensitization, Category 1 - Skin Sens. 1; H317 Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335 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) |GHS05 (Corrosion) |GHS07 (Exclamation mark) |GHS08 (Health Hazard) |



Ingredient	CAS Nbr	EC No.	% by Wt
xylene	1330-20-7	215-535-7	20 - 50
propan-2-ol	67-63-0	200-661-7	15 - 45
butanone	78-93-3	201-159-0	15 - 40
ethylbenzene	100-41-4	202-849-4	<= 10
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6	<= 5
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	202-013-9	< 3
toluene	108-88-3	203-625-9	<= 1

## HAZARD STATEMENTS:

H225	Highly flammable liquid and vapour.
H332	Harmful if inhaled.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
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.
P280B	Wear protective gloves and eye/face 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.	
P310	Immediately call a POISON CENTRE or doctor/physician.	
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.	

## 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
xylene	(CAS-No.) 1330-20-7 (EC-No.) 215-535-7	20 - 50	Flam. Liq. 3, H226 Acute Tox. 4, H332 Acute Tox. 4, H312 Skin Irrit. 2, H315 Nota C Asp. Tox. 1, H304 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412
propan-2-ol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7	15 - 45	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
butanone	(CAS-No.) 78-93-3 (EC-No.) 201-159-0	15 - 40	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
ethylbenzene	(CAS-No.) 100-41-4 (EC-No.) 202-849-4	<= 10	Flam. Liq. 2, H225 Acute Tox. 4, H332 Asp. Tox. 1, H304 STOT RE 2, H373 Aquatic Chronic 3, H412
N-(3- (Trimethoxysilyl)propyl)ethylenediamine	(CAS-No.) 1760-24-3 (EC-No.) 217-164-6	<= 5	Acute Tox. 4, H332 Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373
2,4,6-tris(dimethylaminomethyl)phenol	(CAS-No.) 90-72-2 (EC-No.) 202-013-9	< 3	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318
toluene	(CAS-No.) 108-88-3 (EC-No.) 203-625-9	<= 1	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315

Repr. 2, H361d STOT SE 3, H336
STOT SE 3, 11550 STOT RE 2, H373
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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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 GB CLP classification include:

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Harmful if inhaled. Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). 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

<u>Substance</u>
Carbon monoxide
Carbon dioxide.
Irritant vapours or gases.

<u>Condition</u> During combustion. During combustion. 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

## **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 detergent and water. 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

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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. 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	CAS Nbr	Agency	Limit type	Additional comments
ethylbenzene	100-41-4	UK HSC	TWA:441 mg/m3(100 ppm);STEL:552 mg/m3(125 ppm)	SKIN
toluene	108-88-3	UK HSC	TWA: 191 mg/m <sup>3</sup> (50 ppm); STEL: 384 mg/m <sup>3</sup> (100 ppm)	SKIN
xylene	1330-20-7	UK HSC	TWA:220 mg/m3(50 ppm);STEL:441 mg/m3(100 ppm)	SKIN
propan-2-ol	67-63-0	UK HSC	TWA:999 mg/m <sup>3</sup> (400 ppm);STEL:1250 mg/m <sup>3</sup> (500 ppm)	
butanone	78-93-3	UK HSC	TWA: 600 mg/m <sup>3</sup> (200 ppm); STEL: 899 mg/m <sup>3</sup> (300 ppm)	SKIN

UK HSC : UK Health and Safety Commission TWA: Time-Weighted-Average STEL: Short Term Exposure Limit CEIL: Ceiling

## **Biological limit values**

Ingredient	CAS Nbr	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
xylene	1330-	UK EH40	Methyl	Creatinine in	EOS	650 mmol/mol	l
	20-7	BMGVs	hippuric acid	urine			
butanone	78-93-3	UK EH40	Butan-2-one	Urine	EOS	70 umol/L	
		BMGVs					

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs) EOS: End of shift.

## 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: Full face shield. Indirect vented goggles.

*Applicable Norms/Standards* Use eye/face 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 Polymer laminate Thickness (mm) No data available **Breakthrough Time** No data available

Applicable Norms/Standards Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

## **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

Liquid.
Yellow
Solvent
No data available.
Not applicable.
>=80 °C
Not applicable.
0.9 % volume
12.1 % volume
-8.9 °C [Test Method:Closed Cup] [Details:MEK]
>=404 °C [Details:MEK]
No data available.
substance/mixture is non-soluble (in water)
21 mm <sup>2</sup> /sec
Appreciable
No data available.
No data available.
<=12,132.3 Pa [@ 25 °C ]
0.84 g/ml
0.84 [ <i>Ref Std</i> :WATER=1]
$\geq 2.1$ [ <i>Ref Std</i> :AIR=1]

## 9.2. Other information

9.2.2 Other safety characteristics EU Volatile Organic Compounds

EU Volatile Organic Compounds Evaporation rate Molecular weight Percent volatile No data available. No data available. No data available. No data available.

## **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** Not determined

## 10.6 Hazardous decomposition products Substance

None known.

**Condition** 

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): Signs/symptoms may include redness, swelling, blistering, and itching.

## Eye contact

Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

## Ingestion

May be harmful if swallowed.

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:

Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. 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. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

## **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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation- Vapour(4 hr)		No data available; calculated ATE >20 - =50 mg/l
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 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
xylene	Dermal	Rabbit	LD50 > 4,200 mg/kg
xylene	Inhalation- Vapour (4 hours)	Rat	LC50 29 mg/l
xylene	Ingestion	Rat	LD50 3,523 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
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
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Dermal	Rabbit	LD50 > 2,000 mg/kg
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation- Dust/Mist (4 hours)	Rat	LC50 >1.49, <2.44 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Rat	LD50 1,897 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol	Dermal	Rat	LD50 1,280 mg/kg

Ingestion	Rat	LD50 1,000 mg/kg
Dermal	Rat	LD50 12,000 mg/kg
Inhalation-	Rat	LC50 30 mg/l
Vapour (4		
hours)		
Ingestion	Rat	LD50 5,550 mg/kg
	Dermal Inhalation- Vapour (4 hours)	Dermal Rat Inhalation- Rat Vapour (4 hours)

ATE = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
propan-2-ol	Multiple animal species	No significant irritation
xylene	Rabbit	Mild irritant
butanone	Rabbit	Minimal irritation
ethylbenzene	Rabbit	Mild irritant
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Rabbit	Mild irritant
2,4,6-tris(dimethylaminomethyl)phenol	Rabbit	Corrosive
toluene	Rabbit	Irritant

## Serious Eye Damage/Irritation

Name	Species	Value
propan-2-ol	Rabbit	Severe irritant
xylene	Rabbit	Mild irritant
butanone	Rabbit	Severe irritant
ethylbenzene	Rabbit	Moderate irritant
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Rabbit	Corrosive
2,4,6-tris(dimethylaminomethyl)phenol	Rabbit	Corrosive
toluene	Rabbit	Moderate irritant

## **Skin Sensitisation**

Name	Species	Value
propan-2-ol	Guinea	Not classified
	pig	
ethylbenzene	Human	Not classified
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Multiple	Sensitising
	animal	
	species	
2,4,6-tris(dimethylaminomethyl)phenol	Guinea	Not classified
	pig	
toluene	Guinea	Not classified
	pig	

## **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
propan-2-ol	In Vitro	Not mutagenic
propan-2-ol	In vivo	Not mutagenic
xylene	In Vitro	Not mutagenic
xylene	In vivo	Not mutagenic
butanone	In Vitro	Not mutagenic
ethylbenzene	In vivo	Not mutagenic
ethylbenzene	In Vitro	Some positive data exist, but the data are not sufficient for classification
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	In Vitro	Not mutagenic

N-(3-(Trimethoxysilyl)propyl)ethylenediamine	In vivo	Not mutagenic
2,4,6-tris(dimethylaminomethyl)phenol	In Vitro	Not mutagenic
toluene	In Vitro	Not mutagenic
toluene	In vivo	Not mutagenic

## Carcinogenicity

Name	Route	Species	Value
propan-2-ol	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
xylene	Dermal	Rat	Not carcinogenic
xylene	Ingestion	Multiple animal species	Not carcinogenic
xylene	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
butanone	Inhalation	Human	Not carcinogenic
ethylbenzene	Inhalation	Multiple animal species	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

## **Reproductive Toxicity**

## **Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
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
xylene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
xylene	Ingestion	Not classified for development	Mouse	NOAEL Not available	during organogenesis
xylene	Inhalation	Not classified for development	Multiple animal species	NOAEL Not available	during gestation
butanone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation
ethylbenzene	Inhalation	Not classified for development	Rat	NOAEL 4.3 mg/l	premating & during gestation
N-(3- (Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	premating into lactation
N-(3- (Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	28 days
N-(3- (Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	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

## Lactation

Name	Route	Species	Value
xylene	Ingestion	Mouse	Not classified for effects on or via lactation

## Target Organ(s)

## Specific Target Organ Toxicity - single exposure

Specific Target Organ					I	1
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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
xylene	Inhalation	auditory system	Causes damage to organs	Rat	LOAEL 6.3 mg/l	8 hours
xylene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
xylene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
xylene			Rat	NOAEL 3.5 mg/l	not available	
xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
xylene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
xylene	Ingestion	eyes	Not classified	Rat	NOAEL 250 mg/kg	not applicable
butanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classifica tion	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	Professio nal judgeme nt	NOAEL Not available	
butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
butanone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 mg/kg	not applicable
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	Professio nal judgeme nt	NOAEL Not available	
N-(3- (Trimethoxysilyl)propyl)et hylenediamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2,4,6- tris(dimethylaminomethyl) phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

toluene	Inhalation	central nervous May cause drowsiness or H system depression 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

## Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure
propan-2-ol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.3 mg/l	Duration24 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
xylene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/l	4 weeks
xylene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 7.8 mg/l	5 days
xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
xylene	Inhalation	heart   endocrine system   gastrointestinal tract   hematopoietic system   muscles   kidney and/or bladder   respiratory system	Not classified	Multiple animal species	NOAEL 3.5 mg/l	13 weeks
xylene	Ingestion	auditory system	Not classified	Rat	NOAEL 900 mg/kg/day	2 weeks
xylene	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
xylene	Ingestion	liver	Not classified	Multiple animal species	NOAEL Not available	
xylene	Ingestion	heart   skin   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   nervous system   respiratory system	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 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

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
N-(3- (Trimethoxysilyl)propyl)et hylenediamine	Dermal	skin   endocrine system   hematopoietic system   kidney and/or bladder	Not classified	Rat	NOAEL 1,545 mg/kg/day	11 days
N-(3- (Trimethoxysilyl)propyl)et hylenediamine	Inhalation	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.015 mg/l	90 days
N-(3- (Trimethoxysilyl)propyl)et hylenediamine	Inhalation	hematopoietic system   eyes   kidney and/or bladder	Not classified	Rat	NOAEL 0.044 mg/l	90 days
N-(3- (Trimethoxysilyl)propyl)et hylenediamine	Ingestion	hematopoietic system   nervous system	Not classified	Rat	NOAEL 500 mg/kg/day	28 days
2,4,6- tris(dimethylaminomethyl) phenol	Dermal	skin   liver   nervous system   auditory system   hematopoietic system   eyes	Not classified	Rat	NOAEL 125 mg/kg/day	28 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	13 weeks

					mg/kg/day	
toluene	Ingestion	liver   kidney and/or	Not classified	Multiple	NOAEL	13 weeks
		bladder		animal	2,500	
				species	mg/kg/day	
toluene	Ingestion	hematopoietic	Not classified	Mouse	NOAEL 600	14 days
		system			mg/kg/day	
toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105	28 days
	_	-			mg/kg/day	
toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105	4 weeks
					mg/kg/day	

## **Aspiration Hazard**

Name	Value
xylene	Aspiration hazard
ethylbenzene	Aspiration hazard
toluene	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	Туре	Exposure	Test endpoint	Test result
xylene	1330-20-7	Activated sludge	Estimated	3 hours	NOEC	157 mg/l
xylene	1330-20-7	Green algae	Estimated	72 hours	EC50	4.36 mg/l
xylene	1330-20-7	Rainbow trout	Estimated	96 hours	LC50	2.6 mg/l
xylene	1330-20-7	Water flea	Estimated	48 hours	EC50	3.82 mg/l
xylene	1330-20-7	Green algae	Estimated	72 hours	NOEC	0.44 mg/l
xylene	1330-20-7	Water flea	Estimated	7 days	NOEC	0.96 mg/l
xylene	1330-20-7	Rainbow trout	Experimental	56 days	NOEC	>1.3 mg/l
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
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
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
N-(3- (Trimethoxysilyl)pr opyl)ethylenediami ne	1760-24-3	Bacteria	Experimental	16 hours	EC50	67 mg/l
N-(3- (Trimethoxysilyl)pr opyl)ethylenediami ne	1760-24-3	Fathead minnow	Experimental	96 hours	LC50	168 mg/l
N-(3- (Trimethoxysilyl)pr opyl)ethylenediami ne	1760-24-3	Green algae	Experimental	72 hours	ErC50	8.8 mg/l
N-(3- (Trimethoxysilyl)pr opyl)ethylenediami ne	1760-24-3	Water flea	Experimental	48 hours	EC50	81 mg/l
N-(3- (Trimethoxysilyl)pr opyl)ethylenediami ne	1760-24-3	Green algae	Experimental	72 hours	NOEC	3.1 mg/l
2,4,6- tris(dimethylamino methyl)phenol	90-72-2	N/A	Experimental	96 hours	LC50	718 mg/l
2,4,6- tris(dimethylamino methyl)phenol	90-72-2	Common Carp	Experimental	96 hours	LC50	>100 mg/l
2,4,6- tris(dimethylamino methyl)phenol	90-72-2	Green algae	Experimental	72 hours	EC50	46.7 mg/l
2,4,6- tris(dimethylamino methyl)phenol	90-72-2	Water flea	Experimental	48 hours	EC50	>100 mg/l
2,4,6- tris(dimethylamino methyl)phenol	90-72-2	Green algae	Experimental	72 hours	NOEC	6.44 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)

## 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
xylene	1330-20-7	Experimental Biodegradation	28 days	BOD	90- 98 %BOD/ThOD	OECD 301F - Manometric respirometry
xylene	1330-20-7	Experimental Photolysis		Photolytic half-life (in air)	1.4 days (t 1/2)	
propan-2-ol	67-63-0	Experimental Biodegradation	14 days	BOD	86 %BOD/ThOD	OECD 301C - MITI test (I)
butanone	78-93-3	Experimental Biodegradation	28 days	BOD	98 %BOD/ThOD	OECD 301D - Closed bottle test
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)	
N-(3- (Trimethoxysilyl)pr opyl)ethylenediami ne	1760-24-3	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	39 %removal of DOC	EC C.4.A. DOC Die-Away Test
N-(3- (Trimethoxysilyl)pr opyl)ethylenediami ne	1760-24-3	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	1.5 minutes (t 1/2)	
2,4,6- tris(dimethylamino methyl)phenol	90-72-2	Experimental Biodegradation	28 days	BOD	4 %BOD/ThOD	OECD 301D - Closed bottle test
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)	

## **12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
xylene	1330-20-7	Experimental BCF - Fish	5	Bioaccumulation factor	25.9	
propan-2-ol		Experimental Bioconcentration		Log Kow	0.05	
butanone	78-93-3	Experimental		Log Kow	0.3	OECD 117 log Kow HPLC

		Bioconcentration				method
ethylbenzene	100-41-4	Experimental BCF - Fish	42 days	Bioaccumulation factor	1	
N-(3- (Trimethoxysilyl)pr opyl)ethylenediami ne		Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2,4,6- tris(dimethylamino methyl)phenol	90-72-2	Experimental Bioconcentration		Log Kow	-0.66	830.7550 Part.Coef Shake Flask
toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	

## 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 substances20 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	UN1993	UN1993	UN1993
1 1		¢ /	FLAMMABLE LIQUID, N.O.S.(ISOPROPANOL; METHYL

	METHYL ETHYL KETONE)	METHYL ETHYL KETONE)	ETHYL KETONE)
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	П	Π	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 <u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<b>Regulation</b>
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
xylene	1330-20-7	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 material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. 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 Upper-tier requirements	
		requirements	
ethylbenzene	100-41-4	10	50
propan-2-ol	67-63-0	10	50
butanone	78-93-3	10	50
toluene	108-88-3	10	50
xylene	1330-20-7	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

Repeated exposure may cause skin dryness or cracking.
Highly flammable liquid and vapour.
Flammable liquid and vapour.
Harmful if swallowed.

H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
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:**

Section 11: Target Organs - Repeated Table information was modified.

- Section 14 Classification Code Regulation Data information was modified.
- Section 14 Hazard Class + Sub Risk Regulation Data information was modified.
- Section 14 Hazardous/Not Hazardous for Transportation information was modified.
- Section 14 Other Dangerous Goods Regulation Data information was modified.
- Section 14 Packing Group Regulation Data information was modified.
- Section 14 Proper Shipping Name information was modified.
- Section 14 Segregation Regulation Data information was modified.
- Section 14 UN Number Column data information was modified.
- Section 14: Transportation classification 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.



## Safety Data Sheet

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<b>Revision date:</b>	24/05/2023	Supersedes date:	15/05/2023

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 Scotch-Weld<sup>™</sup> Structural Adhesive Primer EC-1945 B/A, Part B

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

## Identified uses

Primer

## 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.

The aspiration hazard classification is not required due to the product's viscosity.

## CLASSIFICATION:

Flammable Liquid, Category 2 - Flam. Liq. 2; H225 Acute Toxicity, Category 4 - Acute Tox. 4; H302 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315 Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318 Carcinogenicity, Category 1B - Carc. 1B; H350 Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335 Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400 Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

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) |GHS05 (Corrosion) |GHS07 (Exclamation mark) |GHS08 (Health Hazard) |GHS09 (Environment) |

#### **Pictograms**



CAS Nbr	EC No.	% by Wt
13765-19-0	237-366-8	<= 25
78-93-3	201-159-0	< 25
123-86-4	204-658-1	10 - 25
71-36-3	200-751-6	<= 10
	13765-19-0 78-93-3 123-86-4	13765-19-0237-366-878-93-3201-159-0123-86-4204-658-1

## **HAZARD STATEMENTS:**

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H350	May cause cancer.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure: nervous system   respiratory system   sensory organs.
H410	Very toxic to aquatic life with long lasting effects.

## PRECAUTIONARY STATEMENTS

<b>Prevention:</b> P201 P210 P260A P280I	Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapours. Wear protective gloves, eye/face protection, and respiratory protection.	
<b>Response:</b> P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if	

P310 present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.

## SUPPLEMENTAL INFORMATION:

## **Supplemental Hazard Statements:**

EUH211

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

## **Supplemental Precautionary Statements:**

Restricted to professional users.

25% of the mixture consists of components of unknown acute dermal 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], as amended for GB
Antimony nickel titanium oxide yellow	(CAS-No.) 8007-18-9 (EC-No.) 232-353-3	<= 25	Substance with a national occupational exposure limit
butanone	(CAS-No.) 78-93-3 (EC-No.) 201-159-0	< 25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
calcium chromate	(CAS-No.) 13765-19-0 (EC-No.) 237-366-8	<= 25	Acute Tox. 4, H302 Carc. 1B, H350 Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=10
n-butyl acetate	(CAS-No.) 123-86-4 (EC-No.) 204-658-1	10 - 25	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066
Talc	(CAS-No.) 14807-96-6 (EC-No.) 238-877-9	10 - 25	Substance with a national occupational exposure limit
Titanium dioxide	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5	<= 25	Carc. 2, H351 (inhalation)
4-methylpentan-2-one	(CAS-No.) 108-10-1 (EC-No.) 203-550-1	5 - 15	Flam. Liq. 2, H225 Acute Tox. 4, H332(LC50 = 11 mg/l **ATE values per GB MCL**) Eye Irrit. 2, H319 STOT SE 3, H336

			EUH066
xylene	(CAS-No.) 1330-20-7	5 - 15	Flam. Liq. 3, H226
	(EC-No.) 215-535-7		Acute Tox. 4, H332
			Acute Tox. 4, H312
			Skin Irrit. 2, H315
			Nota C
			Asp. Tox. 1, H304
			Eye Irrit. 2, H319
			STOT SE 3, H335
			STOT RE 2, H373
			Aquatic Chronic 3, H412
butan-1-ol	(CAS-No.) 71-36-3	<= 10	Flam. Liq. 3, H226
	(EC-No.) 200-751-6		Acute Tox. 4, H302
			Skin Irrit. 2, H315
			Eye Dam. 1, H318
			STOT SE 3, H336
			STOT SE 3, H335
ethylbenzene	(CAS-No.) 100-41-4	< 5	Flam. Liq. 2, H225
	(EC-No.) 202-849-4		Acute Tox. 4, H332
			Asp. Tox. 1, H304
			STOT RE 2, H373
			Aquatic Chronic 3, H412
Quartz	(CAS-No.) 14808-60-7	<= 1	STOT RE 1, H372
	(EC-No.) 238-878-4		

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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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 GB CLP classification include:

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Irritation to the skin (localized redness, swelling, itching, and dryness). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Harmful if swallowed. 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

<u>Substance</u>	<u>Condition</u>
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. When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus,tunic and trousers (leggings),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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

## **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 detergent and water. 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

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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. 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	CAS Nbr	Agency	Limit type	Additional comments
ethylbenzene	100-41-4	UK HSC	TWA:441 mg/m3(100 ppm);STEL:552 mg/m3(125 ppm)	SKIN
4-methylpentan-2-one	108-10-1	UK HSC	TWA:208 mg/m3(50 ppm);STEL:416 mg/m3(100 ppm)	SKIN
n-butyl acetate	123-86-4	UK HSC	TWA:724 mg/m3(150 ppm);STEL:966 mg/m3(200 ppm)	
xylene	1330-20-7	UK HSC	TWA:220 mg/m3(50 ppm);STEL:441 mg/m3(100 ppm)	SKIN
Titanium dioxide	13463-67-7	UK HSC	TWA(respirable):4 mg/m3;TWA(Inhalable):10 mg/m3	
Chromium (hexavalent compounds)	13765-19-0	UK HSC	3M <sup>™</sup> Scotch-Weld <sup>™</sup> Structural Adhesive Primer EW-5000	Respiratory Sensitizer
Talc	14807-96-6	UK HSC	TWA(as respirable dust):1 mg/m <sup>3</sup>	
Quartz	14808-60-7	UK HSC	TWA(respirable):0.1 mg/m3	
butan-1-ol	71-36-3	UK HSC	STEL:154 mg/m3(50 ppm)	SKIN
butanone	78-93-3	UK HSC	TWA: 600 mg/m <sup>3</sup> (200 ppm); STEL: 899 mg/m <sup>3</sup> (300 ppm)	SKIN
Antimony trioxide	8007-18-9	UK HSC	TWA(as Sb):0.5 mg/m3	
Nickel, water-insoluble inorganic compounds, N.O.S.	8007-18-9	UK HSC	TWA(as Ni):0.5 mg/m3	SKIN; Resp Sensitizer
Nickel, water-soluble inorganic compounds, except nickel carbonyl	8007-18-9	UK HSC	TWA(as Ni):0.1 mg/m3	SKIN; Resp Sensitizer

UK HSC : UK Health and Safety Commission

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

## **Biological limit values**

Ingredient	CAS Nbr	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
4-methylpentan-2- one	108-10- 1	UK EH40 BMGVs	4-Methyl pentan-2-one	Urine	EOS	20 umol/L	
xylene	1330- 20-7	UK EH40 BMGVs	Methyl hippuric acid	Creatinine in urine	EOS	650 mmol/mo	1
Chromium (hexavalent compounds)	13765- 19-0	UK EH40 BMGVs	Chromium	Creatinine in urine	EOS	10 umol/mol	
butanone	78-93-3	UK EH40 BMGVs	Butan-2-one	Urine	EOS	70 umol/L	

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs) EOS: End of shift.

## **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** Polymer laminate

Thickness (mm) No data available Breakthrough Time No data available

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

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

## **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 Half facepiece or full facepiece supplied-air respirator

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 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** Colour Odor **Odour threshold** Melting point/freezing point **Boiling point/boiling range** Flammability (solid, gas) Flammable Limits(LEL) Flammable Limits(UEL) Flash point Autoignition temperature **Decomposition temperature** pН **Kinematic Viscosity** Water solubility Solubility- non-water Partition coefficient: n-octanol/water Vapour pressure Density **Relative density Relative Vapour Density** 

Liquid. Green Solvent No data available. Not applicable. >=118 °C Not applicable. 0.9 % volume 10 % volume 15.6 °C [Test Method:Closed Cup] No data available. No data available. substance/mixture is non-soluble (in water)  $420 \text{ mm}^2/\text{sec}$ Moderate No data available. No data available. <=2,133.2 Pa [@ 20 °C ] 1.31 g/ml 1.31 [Ref Std:WATER=1] >=3.5 [*Ref Std*:AIR=1]

## 9.2. Other information

9.2.2 Other safety characteristics EU Volatile Organic Compounds Evaporation rate Molecular weight

No data available. No data available. No data available.

## **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**

Not determined

None known.

## 10.6 Hazardous decomposition products

<u>Substance</u>

## Condition

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

Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching. May cause additional health effects (see below).

## Eye contact

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

## Ingestion

Harmful if swallowed.

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:

Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure. Kidney/Bladder effects: Signs/symptoms may include

changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

## Prolonged or repeated exposure may cause target organ effects:

Silicosis: Signs/symptoms may include breathlessness, weakness, chest pain, persistent cough, increased amounts of sputum, and heart disease. Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests. Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. 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. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure. Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

## **Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

## Genotoxicity:

Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

## 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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation- Vapour(4 hr)		No data available; calculated ATE >20 - =50 mg/l
Overall product	Ingestion		No data available; calculated ATE >300 - =2,000 mg/kg
n-butyl acetate	Dermal	Rabbit	LD50 > 5,000 mg/kg
n-butyl acetate	Inhalation- Dust/Mist (4 hours)	Rat	LC50 1.4 mg/l
n-butyl acetate	Inhalation- Vapour (4 hours)	Rat	LC50 > 20 mg/l
n-butyl acetate	Ingestion	Rat	LD50 > 8,800 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
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
Antimony nickel titanium oxide yellow	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Antimony nickel titanium oxide yellow	Ingestion	Rat	LD50 > 2,000 mg/kg
calcium chromate	Ingestion	Rat	LD50 327 mg/kg
Titanium dioxide	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l

Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
4-methylpentan-2-one	Dermal	Rabbit	LD50 > 16,000 mg/kg
4-methylpentan-2-one	Inhalation-	Rat	LC50 11 mg/l
	Vapour (4		
	hours)		
4-methylpentan-2-one	Ingestion	Rat	LD50 3,038 mg/kg
butan-1-ol	Dermal	Rabbit	LD50 3,402 mg/kg
butan-1-ol	Inhalation-	Rat	LC50 24 mg/l
	Vapour (4		
	hours)		
butan-1-ol	Ingestion	Rat	LD50 2,290 mg/kg
xylene	Dermal	Rabbit	LD50 > 4,200 mg/kg
xylene	Inhalation-	Rat	LC50 29 mg/l
	Vapour (4		
	hours)		
xylene	Ingestion	Rat	LD50 3,523 mg/kg
ethylbenzene	Dermal	Rabbit	LD50 15,433 mg/kg
ethylbenzene	Inhalation-	Rat	LC50 17.4 mg/l
	Vapour (4		
	hours)		
ethylbenzene	Ingestion	Rat	LD50 4,769 mg/kg
Quartz	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

## **Skin Corrosion/Irritation**

Name	Species	Value
n-butyl acetate	Rabbit	Minimal irritation
butanone	Rabbit	Minimal irritation
Antimony nickel titanium oxide yellow	Rabbit	No significant irritation
calcium chromate	Professio	Mild irritant
	nal	
	judgemen	
	t	
Talc	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
4-methylpentan-2-one	Rabbit	Mild irritant
butan-1-ol	Rabbit	Mild irritant
xylene	Rabbit	Mild irritant
ethylbenzene	Rabbit	Mild irritant
Quartz	Professio	No significant irritation
	nal	-
	judgemen	
	t	

## Serious Eye Damage/Irritation

Name	Species	Value
n-butyl acetate	Rabbit	Moderate irritant
butanone	Rabbit	Severe irritant
Antimony nickel titanium oxide yellow	Rabbit	No significant irritation
calcium chromate	Professio	Moderate irritant
	nal	
	judgemen	
	t	
Talc	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
4-methylpentan-2-one	Rabbit	Mild irritant
butan-1-ol	Rabbit	Severe irritant
xylene	Rabbit	Mild irritant
ethylbenzene	Rabbit	Moderate irritant

## **Skin Sensitisation**

Name	Species	Value
n-butyl acetate	Multiple animal species	Not classified
Antimony nickel titanium oxide yellow	similar compoun ds	Not classified
calcium chromate	similar compoun ds	Sensitising
Titanium dioxide	Human and animal	Not classified
4-methylpentan-2-one	Guinea pig	Not classified
butan-1-ol	Human	Not classified
ethylbenzene	Human	Not classified

## **Respiratory Sensitisation**

Name	Species	Value
Talc	Human	Not classified

## Germ Cell Mutagenicity

Name	Route	Value
n-butyl acetate	In Vitro	Not mutagenic
butanone	In Vitro	Not mutagenic
Antimony nickel titanium oxide yellow	In Vitro	Not mutagenic
calcium chromate	In vivo	Mutagenic
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
4-methylpentan-2-one	In Vitro	Not mutagenic
butan-1-ol	In vivo	Not mutagenic
butan-1-ol	In Vitro	Some positive data exist, but the data are not sufficient for classification
xylene	In Vitro	Not mutagenic
xylene	In vivo	Not mutagenic
ethylbenzene	In vivo	Not mutagenic
ethylbenzene	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not sufficient for classification

## Carcinogenicity

Name	Route	Species	Value
butanone	Inhalation	Human	Not carcinogenic
Antimony nickel titanium oxide yellow	Not specified.	similar compoun ds	Some positive data exist, but the data are not sufficient for classification
calcium chromate	Not specified.	similar compoun ds	Carcinogenic.
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal	Not carcinogenic

		species	
Titanium dioxide	Inhalation	Rat	Carcinogenic.
4-methylpentan-2-one	Inhalation	Multiple animal species	Carcinogenic.
xylene	Dermal	Rat	Not carcinogenic
xylene	Ingestion	Multiple animal species	Not carcinogenic
xylene	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
ethylbenzene	Inhalation	Multiple animal species	Carcinogenic.
Quartz	Inhalation	Human and animal	Carcinogenic.

### **Reproductive Toxicity**

### **Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration	
n-butyl acetate	Inhalation	Not classified for female reproduction	Rat	NOAEL 7.1 mg/l	premating & during gestation	
n-butyl acetate	Inhalation	Not classified for development	Rat	NOAEL 7.1 mg/l	premating & during gestation	
butanone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation	
Antimony nickel titanium oxide yellow	Ingestion	Not classified for reproduction and/or development	Rat	NOAEL 1,000 mg/kg/day	during gestation	
Antimony nickel titanium oxide yellow	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	gestation into lactation	
Antimony nickel titanium oxide yellow	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	46 days	
calcium chromate	Ingestion	Toxic to female reproduction	similar compoun ds	NOAEL Not available		
calcium chromate	Ingestion	Toxic to male reproduction	similar compoun ds	NOAEL Not available		
calcium chromate	Ingestion	Toxic to development	similar compoun ds	NOAEL Not available		
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis	
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	
butan-1-ol Ingestion		Not classified for female reproduction	Rat	NOAEL 5,000 mg/kg/day	premating & during gestation	
butan-1-ol	Inhalation	Not classified for male reproduction	Rat	NOAEL 18 mg/l	6 weeks	

butan-1-ol	Inhalation	Not classified for development	Rat	NOAEL 10.6 mg/l	during gestation
xylene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
xylene	Ingestion	Not classified for development	Mouse	NOAEL Not available	during organogenesis
xylene	Inhalation	Not classified for development	Multiple animal species	NOAEL Not available	during gestation
ethylbenzene	Inhalation	Not classified for development	Rat	NOAEL 4.3 mg/l	premating & during gestation

### Lactation

Name	Route	Species	Value
xylene	Ingestion	Mouse	Not classified for effects on or via lactation

### Target Organ(s)

## Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration	
n-butyl acetate	Inhalation	respiratory system	May cause damage to organs	Rat	LOAEL 2.6 mg/l	4 hours	
n-butyl acetate	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available	
n-butyl acetate	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	not available	
n-butyl acetate	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available		
butanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classifica tion	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	Professio nal judgeme nt	NOAEL Not available		
butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable	
butanone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 mg/kg	not applicable	
calcium chromate	Inhalation	respiratory irritation	May cause respiratory irritation	similar compoun ds	NOAEL Not available		
calcium chromate	Ingestion	kidney and/or bladder	Causes damage to organs	similar compoun ds	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	
butan-1-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available		
butan-1-ol	Inhalation	respiratory irritation	May cause respiratory irritation	official classifica	NOAEL Not available		

				tion		
butan-1-ol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
xylene	Inhalation	auditory system	uditory system Causes damage to organs		LOAEL 6.3 mg/l	8 hours
xylene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
xylene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
xylene	Inhalation	eyes	Not classified	Rat	NOAEL 3.5 mg/l	not available
xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
xylene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
xylene	Ingestion	eyes	Not classified	Rat	NOAEL 250 mg/kg	not applicable
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	Professio nal judgeme nt	NOAEL Not available	

### Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
n-butyl acetate	Inhalation	olfactory system	Not classified	Rat	NOAEL 2.4 mg/l	14 weeks
n-butyl acetate	Inhalation	liver   kidney and/or bladder	Not classified	Rabbit	NOAEL 7.26 mg/l	13 days
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
Antimony nickel titanium oxide yellow	Ingestion	heart   endocrine system   bone, teeth, nails, and/or hair   bone marrow   hematopoietic system   liver   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system	Not classified	Rat	NOAEL 450 mg/kg/day	90 days
calcium chromate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	similar compoun	NOAEL Not available	

				ds		
calcium chromate	ium chromate Ingestion kidney and/or bladder May cause damage to organs though prolonged or repeated exposure		similar compoun ds	NOAEL Not available		
Talc	Inhalation	pneumoconiosis	Repeated and prolonged exposure to large amounts of talc dust can cause lung injury	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis   respiratory system	Not classified	Rat	NOAEL 18 mg/m <sup>3</sup>	113 weeks
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
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
butan-1-ol	Inhalation	blood	Not classified	Rat	NOAEL 0.3 mg/l	3 months
butan-1-ol	Inhalation	auditory system	Not classified	Human	NOAEL Not available	occupational exposure
butan-1-ol	Inhalation	liver   kidney and/or bladder   respiratory system	Not classified	Guinea pig	NOAEL Not available	3 months
butan-1-ol	Inhalation	nervous system	Not classified	Rat	NOAEL 9.09 mg/l	13 weeks
butan-1-ol	Ingestion	blood	Not classified	Rat	NOAEL 500 mg/kg/day	13 weeks
xylene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/l	4 weeks
xylene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 7.8 mg/l	5 days
xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
xylene	Inhalation	heart   endocrine system   gastrointestinal tract   hematopoietic system   muscles   kidney and/or bladder   respiratory system	Not classified	Multiple animal species	NOAEL 3.5 mg/l	13 weeks
xylene	Ingestion	auditory system	Not classified	Rat	NOAEL 900	2 weeks

					mg/kg/day	
xylene	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
xylene	Ingestion	liver	Not classified	Multiple animal species	NOAEL Not available	
xylene	Ingestion	heart   skin   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   nervous system   respiratory system	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 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
Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

### **Aspiration Hazard**

Name	Value		
4-methylpentan-2-one	Some positive data exist, but the data are not sufficient for		
	classification		
butan-1-ol	Some positive data exist, but the data are not sufficient for		
	classification		
xylene	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	Туре	Exposure	Test endpoint	Test result
Antimony nickel titanium oxide yellow	8007-18-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Antimony nickel titanium oxide yellow	8007-18-9	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Antimony nickel titanium oxide vellow	8007-18-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Antimony nickel titanium oxide yellow	8007-18-9	Water flea	Experimental	21 days	No tox obs at lmt of water sol	>100 mg/l
Antimony nickel titanium oxide vellow	8007-18-9	Bacteria	Experimental	30 minutes	EC50	>10,000 mg/l
calcium chromate	13765-19-0	Rainbow trout	Estimated	96 hours	LC50	10.2 mg/l
calcium chromate	13765-19-0	Water flea	Estimated	48 hours	EC50	0.06 mg/l
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
n-butyl acetate	123-86-4	Green algae	Analogous Compound	72 hours	ErC50	397 mg/l
n-butyl acetate	123-86-4	Fathead minnow	Experimental	96 hours	LC50	18 mg/l
n-butyl acetate	123-86-4	Water flea	Experimental	48 hours	EC50	44 mg/l
n-butyl acetate	123-86-4	Green algae	Analogous Compound	72 hours	NOEC	196 mg/l
n-butyl acetate	123-86-4	Water flea	Analogous Compound	21 days	NOEC	23.2 mg/l
n-butyl acetate	123-86-4	Ciliated protozoa	Experimental	40 hours	IC50	356 mg/l
n-butyl acetate	123-86-4	Lettuce	Experimental	14 days	EC50	>1,000 mg/kg (Dry Weight)
Talc	14807-96-6	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Activated sludge	Experimental	3 hours	NOEC	>=1,000 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
4-methylpentan-2- one	108-10-1	Green algae	Experimental	96 hours	EC50	400 mg/l

4-methylpentan-2-	108-10-1	Water flea	Experimental	48 hours	EC50	>200 mg/l
one			-			
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
xylene	1330-20-7	Activated sludge	Estimated	3 hours	NOEC	157 mg/l
xylene	1330-20-7	Green algae	Estimated	72 hours	EC50	4.36 mg/l
xylene	1330-20-7	Rainbow trout	Estimated	96 hours	LC50	2.6 mg/l
xylene	1330-20-7	Water flea	Estimated	48 hours	EC50	3.82 mg/l
xylene	1330-20-7	Green algae	Estimated	72 hours	NOEC	0.44 mg/l
xylene	1330-20-7	Water flea	Estimated	7 days	NOEC	0.96 mg/l
xylene	1330-20-7	Rainbow trout	Experimental	56 days	NOEC	>1.3 mg/l
butan-1-ol	71-36-3	Bacteria	Experimental	16 hours	NOEC	650 mg/l
butan-1-ol	71-36-3	Bluegill	Experimental	96 hours	LC50	100 mg/l
butan-1-ol	71-36-3	Green algae	Experimental	96 hours	EC50	225 mg/l
butan-1-ol	71-36-3	Invertebrate	Experimental	96 hours	LC50	2,100 mg/l
butan-1-ol	71-36-3	Water flea	Experimental	48 hours	EC50	>500 mg/l
butan-1-ol	71-36-3	Green algae	Experimental	72 hours	NOEC	180 mg/l
butan-1-ol	71-36-3	Water flea	Experimental	21 days	NOEC	4.1 mg/l
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
Quartz	14808-60-7	Green algae	Estimated	72 hours	EC50	440 mg/l
Quartz	14808-60-7	Water flea	Estimated	48 hours	EC50	7,600 mg/l
Quartz	14808-60-7	Zebra Fish	Estimated	96 hours	LC50	5,000 mg/l
	14808-60-7	Green algae	Estimated	72 hours	NOEC	60 mg/l

## 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Antimony nickel	8007-18-9	Data not availbl-	N/A	N/A	N/A	N/A
titanium oxide		insufficient				

yellow						
calcium chromate	13765-19-0	Data not availbl- insufficient	N/A	N/A	N/A	N/A
butanone	78-93-3	Experimental Biodegradation	28 days	BOD	98 %BOD/ThOD	OECD 301D - Closed bottle test
n-butyl acetate	123-86-4	Experimental Biodegradation	28 days	BOD	83 %BOD/ThOD	OECD 301D - Closed bottle test
n-butyl acetate	123-86-4	Experimental Photolysis		Photolytic half-life (in air)	6.3 days (t 1/2)	
n-butyl acetate	123-86-4	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	3.1 years (t 1/2)	
Talc	14807-96-6	Data not availbl- insufficient	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Data not availbl- insufficient	N/A	N/A	N/A	N/A
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)	
xylene	1330-20-7	Experimental Biodegradation	28 days	BOD	90- 98 %BOD/ThOD	OECD 301F - Manometric respirometry
xylene	1330-20-7	Experimental Photolysis		Photolytic half-life (in air)	1.4 days (t 1/2)	
butan-1-ol	71-36-3	Experimental Biodegradation	19 days	Dissolv. Organic Carbon Deplet	98 %removal of DOC	OECD 301E - Modif. OECD Screen
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)	
Quartz	14808-60-7	Data not availbl- insufficient	N/A	N/A	N/A	N/A

# 12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Antimony nickel titanium oxide yellow	8007-18-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
calcium chromate	13765-19-0	Estimated BCF - Other	40 days	Bioaccumulation factor	2650	
butanone	78-93-3	Experimental Bioconcentration		Log Kow	0.3	OECD 117 log Kow HPLC method
n-butyl acetate	123-86-4	Experimental Bioconcentration		Log Kow	2.3	OECD 117 log Kow HPLC method
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Experimental BCF - Fish	42 days	Bioaccumulation factor	9.6	
4-methylpentan-2- one	108-10-1	Experimental Bioconcentration		Log Kow	1.9	OECD 117 log Kow HPLC method
xylene	1330-20-7	Experimental BCF - Fish	56 days	Bioaccumulation factor	25.9	
butan-1-ol	71-36-3	Experimental Bioconcentration		Log Kow	0.88	
ethylbenzene	100-41-4	Experimental BCF - Fish	42 days	Bioaccumulation factor	1	
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

## 12.4. Mobility in soil

Material Cas No. Test ty	oe Study Type Test resu	lt Protocol
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n-butyl acetate	 Modeled Mobility in Soil	Koc	135 l/kg	Episuite <sup>TM</sup>
4-methylpentan-2- one	 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.** 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.

Dispose of waste product in a permitted industrial waste 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 substances20 01 27\*Paint, inks, adhesives and resins containing dangerous substances

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	UN1866	UN1866	UN1866
14.2 UN proper shipping name	RESIN SOLUTION	RESIN SOLUTION	RESIN SOLUTION(CALCIUM CHROMATE)
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	Environmentally Hazardous	Not applicable	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	No data available.	No data available.	No data available.

of Marpol 73/78 and IBC Code			
<b>Control Temperature</b>	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 <u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
calcium chromate	13765-19-0	Carc. 1B	The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain, UK Mandatory Classification and Labelling list
ethylbenzene	100-41-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
4-methylpentan-2-one	108-10-1	Carc. 2	Annex VI-17th ATP according to the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain
4-methylpentan-2-one	108-10-1	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Quartz	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
xylene	1330-20-7	Gr. 3: Not classifiable	International Agency for Research on Cancer

### Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. 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	
E1 Hazardous to the Aquatic environment	100	200	
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
butan-1-ol	71-36-3	10	50
Antimony nickel titanium	8007-18-9	200	500
oxide yellow			
calcium chromate	13765-19-0	100	200
ethylbenzene	100-41-4	10	50
butanone	78-93-3	10	50
4-methylpentan-2-one	108-10-1	10	50
n-butyl acetate	123-86-4	10	50
xylene	1330-20-7	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

EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H351i	Suspected of causing cancer by inhalation.

H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure: nervous system   respiratory
	system   sensory organs.
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:**

Section 14 Other Dangerous Goods – Regulation Data information was modified. Section 14 Proper Shipping Name information was modified.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

#### 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.