Safety Data Sheet

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

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

1.1. Product identifier
3M Scotch-Weld™ Structural Adhesive Primer EC-3924B

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

Identified uses
Industrial use.

1.3. Details of the supplier of the safety data sheet

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

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

SECTION 2: Hazard identification

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

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

CLASSIFICATION:
Flammable Liquid, Category 2 - Flam. Liq. 2; H225
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Carcinogenicity, Category 1B - Carc. 1B; H350
Reproductive Toxicity, Category 2 - Repr. 2; H361d
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) |GHS07 (Exclamation mark) |GHS08 (Health Hazard) |

Pictograms

Ingredient	CAS Nbr	EC No.	% by Wt
4-hydroxy-4-methylpentan-2-one	123-42-2	204-626-7	15 - 40
butanone	78-93-3	201-159-0	15 - 40
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3		< 10
Formaldehyde, oligomeric reaction products with phenol	9003-35-4	500-005-2	< 0.4
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4		< 1
strontium chromate	7789-06-2	232-142-6	< 1

HAZARD STATEMENTS:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
H412	Harmful 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.
P261A	Avoid breathing vapours.
P280K	Wear protective gloves and respiratory protection.

Response:

P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

SUPPLEMENTAL INFORMATION:

Supplemental Hazard Statements:

EUH066	Repeated exposure may cause skin dryness or cracking.

Supplemental Precautionary Statements:
Restricted to professional users.

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
4-methylpentan-2-one	(CAS-No.) 108-10-1 (EC-No.) 203-550-1	<= 0.99	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 Carc. 2, H351
toluene	(CAS-No.) 108-88-3 (EC-No.) 203-625-9	<= 0.99	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Aquatic Chronic 3, H412
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
4-hydroxy-4-methylpentan-2-one	(CAS-No.) 123-42-2 (EC-No.) 204-626-7	15 - 40	Eye Irrit. 2, H319 Flam. Liq. 3, H226 Repr. 2, H361d STOT SE 3, H335
tetrahydrofuran	(CAS-No.) 109-99-9 (EC-No.) 203-726-8	< 20	Flam. Liq. 2, H225 EUH019 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 Acute Tox. 4, H302 STOT SE 3, H336
Bisphenol A diglycidyl ether - bisphenol A copolymer	(CAS-No.) 25036-25-3	< 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411

Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	< 5	Substance not classified as hazardous
1-methoxy-2-propanol	(CAS-No.) 107-98-2 (EC-No.) 203-539-1	< 5	Flam. Liq. 3, H226 STOT SE 3, H336
acetone	(CAS-No.) 67-64-1 (EC-No.) 200-662-2	<= 5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
Formaldehyde, oligomeric reaction products with phenol	(CAS-No.) 9003-35-4 (EC-No.) 500-005-2	< 0.4	Skin Sens. 1, H317
methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6	< 0.3	Flam. Liq. 2, H225 Acute Tox. 3, H331 Acute Tox. 3, H311 Acute Tox. 3, H301 STOT SE 1, H370
Phenol-formaldehyde polymer, glycidyl ether	(CAS-No.) 28064-14-4	< 1	Skin Sens. 1, H317 Aquatic Chronic 2, H411
strontium chromate	(CAS-No.) 7789-06-2 (EC-No.) 232-142-6	< 1	Acute Tox. 4, H302 Carc. 1B, H350 Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=1 Acute Tox. 2, H330 Skin Sens. 1, H317 Muta. 2, H341 Repr. 2, H361df STOT SE 3, H335

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

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
4-hydroxy-4-methylpentan-2-one	(CAS-No.) 123-42-2 (EC-No.) 204-626-7	(C >= 10%) Eye Irrit. 2, H319
methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6	(C >= 10%) STOT SE 1, H370 (3% =< C < 10%) STOT SE 2, H371
tetrahydrofuran	(CAS-No.) 109-99-9 (EC-No.) 203-726-8	(C >= 25%) Eye Irrit. 2, H319 (C >= 25%) STOT SE 3, H335

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

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

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

Eye contact
Immediately flush with large amounts of water 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). Allergic skin reaction (redness, swelling, blistering, and itching). Toxic by eye contact. Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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

SECTION 5: Fire-fighting measures

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

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

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes.	During combustion.
formaldehyde	During combustion.
Carbon monoxide	During combustion.
Carbon dioxide.	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. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. 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
1-methoxy-2-propanol	107-98-2	UK HSC	TWA: 375 mg/m³ (100 ppm); STEL: 560 mg/m³ (150 ppm)	SKIN
4-methylpentan-2-one	108-10-1	UK HSC	TWA:208 mg/m3(50 ppm);STEL:416 mg/m3(100 ppm)	SKIN
toluene	108-88-3	UK HSC	TWA: 191 mg/m³ (50 ppm); STEL: 384 mg/m³ (100 ppm)	SKIN
tetrahydrofuran	109-99-9	UK HSC	TWA: 150 mg/m³ (50 ppm); STEL: 300 mg/m³ (100 ppm)	SKIN
4-hydroxy-4-methylpentan-2-one	123-42-2	UK HSC	TWA: 241 mg/m³ (50 ppm); STEL: 362 mg/m³ (75 ppm)	

methanol	67-56-1	UK HSC	TWA:266 mg/m3(200 ppm);STEL:333 mg/m3(250 ppm)	SKIN
acetone	67-64-1	UK HSC	TWA:1210 mg/m³(500 ppm);STEL:3620 mg/m³(1500 ppm)	
Chromium (hexavalent compounds)	7789-06-2	UK HSC	3M™ Scotch-Weld™ Structural Adhesive Primer EW-5000	Respiratory Sensitizer
butanone	78-93-3	UK HSC	TWA: 600 mg/m³ (200 ppm); STEL: 899 mg/m³ (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
4-methylpentan-2-one	108-10-1	UK EH40 BMGVs	4-Methyl pentan-2-one	Urine	EOS	20 umol/L	
Chromium (hexavalent compounds)	7789-06-2	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:
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	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	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	Liquid.
Colour	Yellow
Odor	Solvent
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	>=66 ºC
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	1.8 % volume
Flammable Limits(UEL)	11.8 % volume
Flash point	-14.4 ºC [*Test Method:*Closed Cup] [*Details:*Tetrahydrofuran]
Autoignition temperature	321 ºC [*Details:*Tetrahydrofuran]
Decomposition temperature	*No data available.*
pH	*substance/mixture is non-soluble (in water)*
Kinematic Viscosity	11.2 mm²/sec
Water solubility	Slight (less than 10%)
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	<=21,598.2 Pa [@ 25 ºC]
Density	0.89 g/ml
Relative density	0.89 [*Ref Std:*WATER=1]
Relative Vapour Density	2.5 [*Ref Std:*AIR=1]

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	>=2 [*Ref Std:*ETHER=1]
Percent volatile	95 %

SECTION 10: Stability and reactivity

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

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

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

10.5 Incompatible materials
Strong oxidising agents.
Strong acids.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

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

Signs and Symptoms of Exposure

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

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

Skin contact
Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching. May cause additional health effects (see below).

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

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
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
4-hydroxy-4-methylpentan-2-one	Dermal	Rabbit	LD50 13,645 mg/kg
4-hydroxy-4-methylpentan-2-one	Inhalation-Vapour (4 hours)	Rat	LC50 > 7.6 mg/l
4-hydroxy-4-methylpentan-2-one	Ingestion	Rat	LD50 3,002 mg/kg
tetrahydrofuran	Dermal	Rat	LD50 > 2,000 mg/kg
tetrahydrofuran	Inhalation-Vapour (4 hours)	Rat	LC50 54 mg/l
tetrahydrofuran	Ingestion	Rat	LD50 1,650 mg/kg
acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
acetone	Inhalation-Vapour (4 hours)	Rat	LC50 76 mg/l
acetone	Ingestion	Rat	LD50 5,800 mg/kg
Bisphenol A diglycidyl ether - bisphenol A copolymer	Dermal	Rat	LD50 > 1,600 mg/kg
Bisphenol A diglycidyl ether - bisphenol A copolymer	Ingestion	Rat	LD50 > 1,000 mg/kg
1-methoxy-2-propanol	Dermal	Rabbit	LD50 11,000-13,800 mg/kg
1-methoxy-2-propanol	Inhalation-Vapour (4 hours)	Rat	LC50 56 mg/l
1-methoxy-2-propanol	Ingestion	Rat	LD50 6,100 mg/kg
4-methylpentan-2-one	Dermal	Rabbit	LD50 > 16,000 mg/kg
4-methylpentan-2-one	Inhalation-Vapour (4 hours)	Rat	LC50 11 mg/l
4-methylpentan-2-one	Ingestion	Rat	LD50 3,038 mg/kg
toluene	Dermal	Rat	LD50 12,000 mg/kg
toluene	Inhalation-Vapour (4	Rat	LC50 30 mg/l

	hours)		
toluene	Ingestion	Rat	LD50 5,550 mg/kg
Phenol-formaldehyde polymer, glycidyl ether	Dermal	Rabbit	LD50 > 6,000 mg/kg
Phenol-formaldehyde polymer, glycidyl ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
Phenol-formaldehyde polymer, glycidyl ether	Ingestion	Rat	LD50 > 4,000 mg/kg
strontium chromate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
strontium chromate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.27 mg/l
strontium chromate	Ingestion	Rat	LD50 3,118 mg/kg
methanol	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
methanol	Inhalation-Vapour		LC50 estimated to be 10 - 20 mg/l
methanol	Ingestion		LD50 estimated to be 50 - 300 mg/kg
Formaldehyde, oligomeric reaction products with phenol	Dermal	Rat	LD50 > 2,000 mg/kg
Formaldehyde, oligomeric reaction products with phenol	Ingestion	Rat	LD50 > 2,900 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
butanone	Rabbit	Minimal irritation
4-hydroxy-4-methylpentan-2-one	Rabbit	No significant irritation
tetrahydrofuran	Rabbit	Minimal irritation
acetone	Mouse	Minimal irritation
Bisphenol A diglycidyl ether - bisphenol A copolymer	Rabbit	Mild irritant
1-methoxy-2-propanol	Not available	Minimal irritation
4-methylpentan-2-one	Rabbit	Mild irritant
toluene	Rabbit	Irritant
Phenol-formaldehyde polymer, glycidyl ether	Rabbit	Minimal irritation
strontium chromate	Professional judgement	Mild irritant
methanol	Rabbit	Mild irritant
Formaldehyde, oligomeric reaction products with phenol	Human and animal	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
butanone	Rabbit	Severe irritant
4-hydroxy-4-methylpentan-2-one	Rabbit	Severe irritant
tetrahydrofuran	Rabbit	Corrosive
acetone	Rabbit	Severe irritant
Bisphenol A diglycidyl ether - bisphenol A copolymer	Rabbit	Moderate irritant
1-methoxy-2-propanol	Not available	Mild irritant
4-methylpentan-2-one	Rabbit	Mild irritant
toluene	Rabbit	Moderate irritant
Phenol-formaldehyde polymer, glycidyl ether	Rabbit	Mild irritant
strontium chromate	Rabbit	Mild irritant
methanol	Rabbit	Moderate irritant
Formaldehyde, oligomeric reaction products with phenol	Human and animal	Moderate irritant

Skin Sensitisation

Name	Species	Value
4-hydroxy-4-methylpentan-2-one	Guinea pig	Not classified
tetrahydrofuran	Human and animal	Not classified
Bisphenol A diglycidyl ether - bisphenol A copolymer	Human and animal	Sensitising
1-methoxy-2-propanol	Guinea pig	Not classified
4-methylpentan-2-one	Guinea pig	Not classified
toluene	Guinea pig	Not classified
Phenol-formaldehyde polymer, glycidyl ether	Human and animal	Sensitising
strontium chromate	similar compounds	Sensitising
methanol	Guinea pig	Not classified
Formaldehyde, oligomeric reaction products with phenol	Human and animal	Sensitising

Respiratory Sensitisation

Name	Species	Value
Bisphenol A diglycidyl ether - bisphenol A copolymer	Human	Not classified
Formaldehyde, oligomeric reaction products with phenol	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
butanone	In Vitro	Not mutagenic
4-hydroxy-4-methylpentan-2-one	In Vitro	Some positive data exist, but the data are not sufficient for classification
tetrahydrofuran	In Vitro	Not mutagenic
tetrahydrofuran	In vivo	Not mutagenic
acetone	In vivo	Not mutagenic
acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Bisphenol A diglycidyl ether - bisphenol A copolymer	In vivo	Not mutagenic
Bisphenol A diglycidyl ether - bisphenol A copolymer	In Vitro	Some positive data exist, but the data are not sufficient for classification
1-methoxy-2-propanol	In Vitro	Not mutagenic
4-methylpentan-2-one	In Vitro	Not mutagenic
toluene	In Vitro	Not mutagenic
toluene	In vivo	Not mutagenic
Phenol-formaldehyde polymer, glycidyl ether	In Vitro	Some positive data exist, but the data are not sufficient for classification
strontium chromate	In vivo	Mutagenic
methanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
methanol	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
butanone	Inhalation	Human	Not carcinogenic
tetrahydrofuran	Inhalation	Multiple	Carcinogenic.

		animal species	
acetone	Not specified.	Multiple animal species	Not carcinogenic
Bisphenol A diglycidyl ether - bisphenol A copolymer	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
1-methoxy-2-propanol	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
4-methylpentan-2-one	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
strontium chromate	Not specified.	similar compounds	Carcinogenic.
methanol	Inhalation	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
butanone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation
4-hydroxy-4-methylpentan-2-one	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
4-hydroxy-4-methylpentan-2-one	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	44 days
4-hydroxy-4-methylpentan-2-one	Ingestion	Toxic to development	Rabbit	NOAEL 100 mg/kg/day	during gestation
tetrahydrofuran	Ingestion	Not classified for female reproduction	Rat	NOAEL 782 mg/kg/day	2 generation
tetrahydrofuran	Ingestion	Not classified for male reproduction	Rat	NOAEL 782 mg/kg/day	2 generation
tetrahydrofuran	Ingestion	Not classified for development	Rat	NOAEL 305 mg/kg/day	2 generation
tetrahydrofuran	Inhalation	Not classified for development	Mouse	NOAEL 1.8 mg/l	during gestation
acetone	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,700 mg/kg/day	13 weeks
acetone	Inhalation	Not classified for development	Rat	NOAEL 5.2 mg/l	during organogenesis
Bisphenol A diglycidyl ether - bisphenol A copolymer	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Bisphenol A diglycidyl ether - bisphenol A copolymer	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Bisphenol A diglycidyl ether - bisphenol A copolymer	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
Bisphenol A diglycidyl ether - bisphenol A copolymer	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
1-methoxy-2-propanol	Inhalation	Not classified for male reproduction	Rat	NOAEL 11 mg/l	2 generation
1-methoxy-2-propanol	Ingestion	Not classified for female reproduction	Mouse	NOAEL 3,328 mg/kg/day	2 generation
1-methoxy-2-propanol	Inhalation	Not classified for female reproduction	Rat	NOAEL 3.7	2 generation

				mg/l	
1-methoxy-2-propanol	Ingestion	Not classified for male reproduction	Mouse	NOAEL 3,328 mg/kg	2 generation
1-methoxy-2-propanol	Ingestion	Not classified for development	Rat	NOAEL 370 mg/kg	during gestation
1-methoxy-2-propanol	Inhalation	Not classified for development	Rat	NOAEL 3.7 mg/l	2 generation
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
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
strontium chromate	Ingestion	Toxic to female reproduction	similar compounds	NOAEL Not available	
strontium chromate	Ingestion	Toxic to male reproduction	similar compounds	NOAEL Not available	
strontium chromate	Ingestion	Toxic to development	similar compounds	NOAEL Not available	
methanol	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,600 mg/kg/day	21 days
methanol	Ingestion	Toxic to development	Mouse	LOAEL 4,000 mg/kg/day	during organogenesis
methanol	Inhalation	Toxic to development	Mouse	NOAEL 1.3 mg/l	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
butanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classification	NOAEL Not available	
butanone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
butanone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
butanone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 mg/kg	not applicable
4-hydroxy-4-methylpentan-2-one	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	

4-hydroxy-4-methylpentan-2-one	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	
4-hydroxy-4-methylpentan-2-one	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
4-hydroxy-4-methylpentan-2-one	Ingestion	blood	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,882 mg/kg	
4-hydroxy-4-methylpentan-2-one	Ingestion	liver	Not classified	Rat	NOAEL 1,882 mg/kg	not applicable
tetrahydrofuran	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
tetrahydrofuran	Inhalation	respiratory irritation	May cause respiratory irritation		NOAEL Not available	
tetrahydrofuran	Inhalation	respiratory system	Not classified	Rabbit	NOAEL 2.9 mg/l	4 hours
tetrahydrofuran	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	NOAEL 180 mg/kg	not applicable
acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 hours
acetone	Inhalation	liver	Not classified	Guinea pig	NOAEL Not available	
acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
1-methoxy-2-propanol	Dermal	central nervous system depression	Not classified	Rabbit	NOAEL 1,800 mg/kg	13 weeks
1-methoxy-2-propanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	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
toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
strontium chromate	Inhalation	respiratory irritation	May cause respiratory irritation	similar compounds	NOAEL Not available	
strontium chromate	Ingestion	kidney and/or bladder	Causes damage to organs	similar compounds	NOAEL Not available	
methanol	Inhalation	blindness	Causes damage to organs	Human	NOAEL Not available	occupational exposure
methanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
methanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 hours
methanol	Ingestion	blindness	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
methanol	Ingestion	central nervous	May cause drowsiness or	Human	NOAEL Not	poisoning

		system depression	dizziness		available	and/or abuse
Formaldehyde, oligomeric reaction products with phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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
4-hydroxy-4-methylpentan-2-one	Inhalation	liver | kidney and/or bladder	Not classified	Rat	NOAEL 4.5 mg/l	6 weeks
4-hydroxy-4-methylpentan-2-one	Ingestion	endocrine system | liver | kidney and/or bladder | hematopoietic system | nervous system | eyes	Not classified	Rat	NOAEL 600 mg/kg/day	13 weeks
tetrahydrofuran	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.6 mg/l	12 weeks
tetrahydrofuran	Inhalation	respiratory system	Not classified	Rat	NOAEL 2.9 mg/l	12 weeks
tetrahydrofuran	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.6 mg/l	105 weeks
tetrahydrofuran	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	2 weeks
acetone	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
acetone	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
acetone	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
acetone	Inhalation	heart | liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
acetone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
acetone	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
acetone	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
acetone	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
acetone	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
acetone	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks

acetone	Ingestion	muscles	Not classified	Rat	NOAEL 2,500 mg/kg	13 weeks
acetone	Ingestion	skin | bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Bisphenol A diglycidyl ether - bisphenol A copolymer	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Bisphenol A diglycidyl ether - bisphenol A copolymer	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Bisphenol A diglycidyl ether - bisphenol A copolymer	Ingestion	auditory system | heart | endocrine system | hematopoietic system | liver | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
1-methoxy-2-propanol	Dermal	kidney and/or bladder	Not classified	Rabbit	NOAEL 1,800 mg/kg/day	13 weeks
1-methoxy-2-propanol	Dermal	hematopoietic system	Not classified	Rabbit	NOAEL 1,000 mg/kg/day	3 weeks
1-methoxy-2-propanol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 3.7 mg/l	13 weeks
1-methoxy-2-propanol	Inhalation	liver	Not classified	Rat	NOAEL 11 mg/l	13 weeks
1-methoxy-2-propanol	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 2.2 mg/l	10 days
1-methoxy-2-propanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 920 mg/kg/day	13 weeks
1-methoxy-2-propanol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 920 mg/kg/day	13 weeks
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
toluene	Inhalation	auditory system | nervous system | eyes | olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months

toluene	Inhalation	heart | liver | kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
toluene	Inhalation	hematopoietic system | vascular system	Not classified	Human	NOAEL Not available	occupational exposure
toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
toluene	Ingestion	liver | kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
strontium chromate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	similar compoun ds	NOAEL Not available	
strontium chromate	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	similar compoun ds	NOAEL Not available	
methanol	Inhalation	liver	Not classified	Rat	NOAEL 6.55 mg/l	4 weeks
methanol	Inhalation	respiratory system	Not classified	Rat	NOAEL 13.1 mg/l	6 weeks
methanol	Ingestion	liver | nervous system	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days
Formaldehyde, oligomeric reaction products with phenol	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	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
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	Type	Exposure	Test endpoint	Test result
4-methylpentan-2-one	108-10-1	Green algae	Experimental	96 hours	EC50	400 mg/l
4-methylpentan-2-one	108-10-1	Water flea	Experimental	48 hours	EC50	>200 mg/l
4-methylpentan-2-one	108-10-1	Zebra Fish	Experimental	96 hours	LC50	>179 mg/l
4-methylpentan-2-one	108-10-1	Fathead minnow	Experimental	32 days	NOEC	56.2 mg/l
4-methylpentan-2-one	108-10-1	Water flea	Experimental	21 days	NOEC	78 mg/l
4-methylpentan-2-one	108-10-1	Activated sludge	Experimental	30 minutes	EC50	>1,000
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)
4-hydroxy-4-methylpentan-2-one	123-42-2	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
4-hydroxy-4-methylpentan-2-one	123-42-2	Bacteria	Experimental	16 hours	NOEC	825 mg/l
4-hydroxy-4-methylpentan-2-one	123-42-2	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
4-hydroxy-4-methylpentan-2-one	123-42-2	Inland Silverside	Experimental	96 hours	LC50	420 mg/l
4-hydroxy-4-methylpentan-2-one	123-42-2	Medaka	Experimental	96 hours	LC50	>100 mg/l
4-hydroxy-4-methylpentan-2-one	123-42-2	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
4-hydroxy-4-methylpentan-2-	123-42-2	Green algae	Experimental	72 hours	NOEC	1,000 mg/l

one						
4-hydroxy-4-methylpentan-2-one	123-42-2	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
tetrahydrofuran	109-99-9	Activated sludge	Experimental	3 hours	IC50	460 mg/l
tetrahydrofuran	109-99-9	Fathead minnow	Experimental	96 hours	LC50	2,160 mg/l
tetrahydrofuran	109-99-9	Water flea	Experimental	48 hours	LC50	3,485 mg/l
tetrahydrofuran	109-99-9	Fathead minnow	Experimental	33 days	NOEC	216 mg/l
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	Green algae	Estimated	72 hours	EC50	>11 mg/l
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	Rainbow trout	Estimated	96 hours	LC50	2 mg/l
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	Water flea	Estimated	48 hours	EC50	1.8 mg/l
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	Green algae	Estimated	72 hours	NOEC	4.2 mg/l
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	Water flea	Estimated	21 days	NOEC	0.3 mg/l
1-methoxy-2-propanol	107-98-2	Activated sludge	Experimental	3 hours	IC50	>1,000 mg/l
1-methoxy-2-propanol	107-98-2	Activated sludge	Experimental	16 hours	EC50	>5,000 mg/l
1-methoxy-2-propanol	107-98-2	Algae or other aquatic plants	Experimental	72 hours	EC50	6,745 mg/l
1-methoxy-2-propanol	107-98-2	Golden Orfe	Experimental	96 hours	LC50	6,812 mg/l
1-methoxy-2-propanol	107-98-2	Green algae	Experimental	96 hours	EC50	>1,000 mg/l
1-methoxy-2-propanol	107-98-2	Water flea	Experimental	48 hours	EC50	23,300 mg/l
acetone	67-64-1	Algae or other aquatic plants	Experimental	96 hours	EC50	11,493 mg/l
acetone	67-64-1	Invertebrate	Experimental	24 hours	LC50	2,100 mg/l
acetone	67-64-1	Rainbow trout	Experimental	96 hours	LC50	5,540 mg/l
acetone	67-64-1	Water flea	Experimental	21 days	NOEC	1,000 mg/l
acetone	67-64-1	Bacteria	Experimental	16 hours	NOEC	1,700 mg/l

acetone	67-64-1	Redworm	Experimental	48 hours	LC50	>100
Formaldehyde, oligomeric reaction products with phenol	9003-35-4	N/A	Data not available or insufficient for classification	N/A	N/A	n/a
methanol	67-56-1	Algae or other aquatic plants	Experimental	96 hours	EC50	16.9 mg/l
methanol	67-56-1	Bay mussel	Experimental	96 hours	LC50	15,900 mg/l
methanol	67-56-1	Bluegill	Experimental	96 hours	LC50	15,400 mg/l
methanol	67-56-1	Green algae	Experimental	96 hours	ErC50	22,000 mg/l
methanol	67-56-1	Sediment organism	Experimental	96 hours	LC50	54,890 mg/l
methanol	67-56-1	Water flea	Experimental	48 hours	LC50	3,289 mg/l
methanol	67-56-1	Green algae	Experimental	96 hours	NOEC	9.96 mg/l
methanol	67-56-1	Medaka	Experimental	8.33 days	NOEC	158,000 mg/l
methanol	67-56-1	Water flea	Experimental	21 days	NOEC	122 mg/l
methanol	67-56-1	Activated sludge	Experimental	3 hours	IC50	>1,000 mg/l
methanol	67-56-1	Barley	Experimental	14 days	EC50	15,492 mg/kg (Dry Weight)
methanol	67-56-1	Redworm	Experimental	63 days	EC50	26,646 mg/kg (Dry Weight)
methanol	67-56-1	Springtail	Experimental	28 days	EC50	5,683 mg/kg (Dry Weight)
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	Golden Orfe	Experimental	96 hours	LC50	5.7 mg/l
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	Water flea	Experimental	48 hours	EC50	3.5 mg/l
strontium chromate	7789-06-2	Fish	Estimated	96 hours	LC50	81.5 mg/l
strontium chromate	7789-06-2	Green algae	Estimated	72 hours	ErC50	0.912 mg/l
strontium chromate	7789-06-2	Water flea	Estimated	48 hours	EC50	0.0806 mg/l
strontium chromate	7789-06-2	Brook trout	Estimated	8 months	NOEC	0.04 mg/l
strontium chromate	7789-06-2	Duckweed	Estimated	7 days	NOEC	0.43 mg/l
strontium chromate	7789-06-2	Green algae	Estimated	72 hours	ErC10	0.04 mg/l
strontium chromate	7789-06-2	Water flea	Estimated	7 days	NOEC	0.018 mg/l
strontium chromate	7789-06-2	Activated sludge	Estimated	3 hours	IC50	120 mg/l
strontium chromate	7789-06-2	Arthropod	Estimated	28 days	NOEC	200 ppm diet
strontium chromate	7789-06-2	Lettuce	Estimated	14 days	EC50	7 mg/kg (Dry Weight)
strontium chromate	7789-06-2	Redworm	Estimated	14 days	EC50	3,100 mg/kg (Dry Weight)
strontium chromate	7789-06-2	Soil microbes	Estimated	4 days	NOEC	<1 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
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)	
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)	
4-hydroxy-4-methylpentan-2-one	123-42-2	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	98.5 %removal of DOC	
butanone	78-93-3	Experimental Biodegradation	28 days	BOD	98 %BOD/ThOD	OECD 301D - Closed bottle test
tetrahydrofuran	109-99-9	Experimental Biodegradation	28 days	BOD	39 %BOD/ThOD	
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	Estimated Biodegradation	28 days	BOD	5 %BOD/ThOD	OECD 301F - Manometric respirometry
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	Estimated Hydrolysis		Hydrolytic half-life	117 hours (t 1/2)	
1-methoxy-2-propanol	107-98-2	Experimental Biodegradation	28 days	BOD	90 %BOD/ThOD	OECD 301C - MITI test (I)
acetone	67-64-1	Experimental Biodegradation	28 days	BOD	78 %BOD/ThOD	OECD 301D - Closed bottle test
acetone	67-64-1	Experimental Photolysis		Photolytic half-life (in air)	147 days (t 1/2)	
Formaldehyde, oligomeric reaction products with phenol	9003-35-4	Estimated Biodegradation	28 days	BOD	3 %BOD/ThOD	
methanol	67-56-1	Experimental Biodegradation	3 days	Percent degraded	91 %degraded	
methanol	67-56-1	Experimental Biodegradation	14 days	BOD	92 %BOD/ThOD	OECD 301C - MITI test (I)
methanol	67-56-1	Experimental Photolysis		Photolytic half-life (in air)	35 days (t 1/2)	
methanol	67-56-1	Experimental Soil Metabolism Aerobic	5 days	CO2 evolution	53.4 %CO2 evolution/THCO2 evolution	
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	Laboratory Biodegradation	28 days	CO2 evolution	10-16 %CO2 evolution/THCO2 evolution (does not pass 10-day window)	OECD 301B - Modified sturm or CO2
strontium chromate	7789-06-2	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
4-methylpentan-2-one	108-10-1	Experimental Bioconcentration		Log Kow	1.9	OECD 117 log Kow HPLC method
toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	
4-hydroxy-4-methylpentan-2-one	123-42-2	Experimental Bioconcentration		Log Kow	-0.14	
butanone	78-93-3	Experimental Bioconcentration		Log Kow	0.3	OECD 117 log Kow HPLC method
tetrahydrofuran	109-99-9	Experimental		Log Kow	0.45	

		Bioconcentration				
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	Estimated Bioconcentration		Log Kow	3.242	
1-methoxy-2-propanol	107-98-2	Experimental Bioconcentration		Log Kow	-0.437	
acetone	67-64-1	Experimental BCF - Other		Bioaccumulation factor	0.65	
acetone	67-64-1	Experimental Bioconcentration		Log Kow	-0.24	
Formaldehyde, oligomeric reaction products with phenol	9003-35-4	Estimated Bioconcentration		Bioaccumulation factor	2.57	
methanol	67-56-1	Experimental BCF - Fish	3 days	Bioaccumulation factor	<4.5	
methanol	67-56-1	Experimental Bioconcentration		Log Kow	-0.77	
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
strontium chromate	7789-06-2	Estimated BCF - Other		Bioaccumulation factor	610-3400	

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
4-methylpentan-2-one	108-10-1	Modeled Mobility in Soil	Koc	150 l/kg	Episuite™
toluene	108-88-3	Experimental Mobility in Soil	Koc	37-160 l/kg	
acetone	67-64-1	Modeled Mobility in Soil	Koc	9.7 l/kg	Episuite™
Formaldehyde, oligomeric reaction products with phenol	9003-35-4	Experimental Mobility in Soil	Koc	637 l/kg	OECD 121 Estim. of Koc by HPLC
methanol	67-56-1	Experimental Mobility in Soil	Koc	0.13 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.

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 substances

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT(STRONTIUM CHROMATE(VI))
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	Not Environmentally Hazardous	Not applicable	Marine Pollutant
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	F1	Not applicable.	Not applicable.
IMDG Segregation Code	Not applicable.	Not applicable.	NONE

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

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	CAS Nbr	Classification	Regulation
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
strontium chromate	7789-06-2	Carc. 1B	The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain, UK Mandatory Classification and Labelling list
tetrahydrofuran	109-99-9	Carc. 2	The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain, UK Mandatory Classification and Labelling list
tetrahydrofuran	109-99-9	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
toluene	108-88-3	Gr. 3: Not classifiable	International Agency for Research on Cancer

Restrictions on the manufacture, placing on the market and use:
The following substance(s) contained in this product is/are subject 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
methanol	67-56-1
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

Authorisation status under UK REACH:
The following substance/s contained in this product might be or is/are subject to authorisation in accordance with UK REACH:

Ingredient	CAS Nbr
strontium chromate	7789-06-2

horization status: listed in UK REACH Annex XIV (“Authorization

')

Ingredient	CAS Nbr
strontium chromate	7789-06-2

Authorisation status: listed in the UK REACH Candidate List of Substances of Very High Concern for Authorisation

Regulation UK regulation 2023/63 (marketing and use of explosive precursors and poisons)

This product contains a reportable substance according to UK legislation 1972/66: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Please see UK Regulation 2023/63 for further details.

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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

COMAH Regulation, SI 2015/483
Seveso hazard categories, Annex 1, Part 1

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

*If maintained at a temperature above its boiling point or if particular processing conditions, such as high pressure or high temperature, may create major-accident hazards, P5a or P5b FLAMMABLE LIQUIDS may apply
Seveso named dangerous substances, Annex 1, Part 2

Dangerous Substances	Identifier(s)	Qualifying quantity (tonnes) for the application of	
		Lower-tier requirements	Upper-tier requirements
1-methoxy-2-propanol	107-98-2	10	50
acetone	67-64-1	10	50
methanol	67-56-1	500	5000
butanone	78-93-3	10	50
4-methylpentan-2-one	108-10-1	10	50
strontium chromate	7789-06-2	100	200
tetrahydrofuran	109-99-9	10	50
toluene	108-88-3	10	50

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

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No

1907/2006, as amended for GB.

SECTION 16: Other information

List of relevant H statements

EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H361df	Suspected of damaging fertility. Suspected of damaging the unborn child.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
GB Section 02: CLP Ingredient table information was modified.
Label: CLP Classification information was modified.
Label: CLP Environmental Hazard Statements information was modified.
Label: CLP Precautionary - Prevention information was modified.
Label: CLP Precautionary - Response information was modified.
Label: Graphic information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Mobility in soil information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 15: Seveso Hazard Category Text information was modified.
Section 3: Composition/ Information of ingredients table information was modified.

Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. 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.