Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier
3M 08537 Brushable Seam Sealer

Product Identification Numbers
FS-9100-3115-2

7000079947

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

Identified uses
Automotive.

1.3. Details of the supplier of the safety data sheet
Address: 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.
Telephone: +353 1 280 3555
E Mail: tox.uk@mmm.com
Website: www.3M.com

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

SECTION 2: Hazard identification

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

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.
The aspiration hazard classification is not required due to the product's viscosity.

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

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Reproductive Toxicity, Category 2 - Repr. 2; H361
Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

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

SIGNAL WORD
DANGER.

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

Pictograms

Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
butanone	78-93-3	201-159-0	15 - 30
toluene	108-88-3	203-625-9	7 - 13

HAZARD STATEMENTS:

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.
H336	May cause drowsiness or dizziness.
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.
P280F	Wear respiratory protection.

Response:

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

3% of the mixture consists of components of unknown acute oral toxicity.

3% of the mixture consists of components of unknown acute inhalation toxicity.
Contains 7% of components with unknown hazards to the aquatic environment.

EU VOC Directive (2004/42/EC) labelling: 2004/42/EC IIB(e)(840)
470g/l

2.3. Other hazards

None known.

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]
Limestone	(CAS-No.) 1317-65-3 (EC-No.) 215-279-6	30 - 60	Substance with a national occupational exposure limit
Acrylonitrile - butadiene polymer	(CAS-No.) 9003-18-3	10 - 30	Substance not classified as hazardous
butanone	(CAS-No.) 78-93-3 (EC-No.) 201-159-0 (REACH-No.) 01-2119457290-43	15 - 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
toluene	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (REACH-No.) 01-2119471310-51	7 - 13	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
Formo-Phenolic resin	Trade Secret	1 - 10	Substance not classified as hazardous
4-methylpentan-2-one	(CAS-No.) 108-10-1 (EC-No.) 203-550-1 (REACH-No.) 01-2119473980-30	1 - 10	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 STOT SE 3, H335 EUH066
Nitrile rubber	Trade Secret	1 - 3	Substance not classified as hazardous
Poly(Vinyl Chloride)	(CAS-No.) 9002-86-2 (EC-No.) 618-338-8	0.5 - 1.5	Substance with a national occupational exposure limit
Titanium dioxide	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5	0.1 - 1	Carc. 2, H351 (inhalation)
4-tert-butylphenol	(CAS-No.) 98-54-4 (EC-No.) 202-679-0	0.05 - 0.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361f

			Aquatic Chronic 1, H410,M=1
2,6-di-tert-butyl-p-cresol	Trade Secret	0.05 - 0.5	Aquatic Chronic 1, H410,M=1 Aquatic Acute 1, H400,M=1

Any entry in the Identifier(s) column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.
Please see section 16 for the full text of any H statements referred to in this section

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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

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

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

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

4.2. Most important symptoms and effects, both acute and delayed
The most important symptoms and effects based on the CLP classification include:
Irritation to the skin (localized redness, swelling, itching, and dryness). 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). Target organ effects. See Section 11 for additional details.

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

SECTION 5: Fire-fighting measures

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

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

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	During combustion.

5.3. Advice for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure

demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Eliminate all ignition sources if safe to do so. 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. 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 use in a confined area with minimal air exchange. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators…) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

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

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

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

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
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
Limestone	1317-65-3	UK HSC	TWA(respirable):4 mg/m3;TWA(as respirable dust):4 mg/m3;TWA(Inhalable):10 mg/m3;TWA(as inhalable dust):10 mg/m3	
Titanium dioxide	13463-67-7	UK HSC	TWA(respirable):4 mg/m3;TWA(Inhalable):10 mg/m3	
butanone	78-93-3	UK HSC	TWA: 600 mg/m³ (200 ppm); STEL: 899 mg/m³ (300 ppm)	SKIN
Poly(Vinyl Chloride)	9002-86-2	UK HSC	TWA(as respirable dust):4 mg/m3;TWA(as inhalable dust):10 mg/m3	
2,6-di-tert-butyl-p-cresol	Trade Secret	UK HSC	TWA:10 mg/m³	

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

Biological limit values

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

Derived no effect level (DNEL)

Ingredient	Degradation Product	Population	Human exposure pattern	DNEL
butanone		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	1,161 mg/kg bw/d
butanone		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	600 mg/m³
toluene		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	384 mg/kg bw/d
toluene		Worker	Inhalation, Long-term exposure (8 hours), Local effects	192 mg/m³
toluene		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	192 mg/m³
toluene		Worker	Inhalation, Short-term exposure, Local effects	384 mg/m³
toluene		Worker	Inhalation, Short-term exposure, Systemic effects	384 mg/m³

Predicted no effect concentrations (PNEC)

Ingredient	Degradation Product	Compartment	PNEC
butanone		Agricultural soil	22.5 mg/kg d.w.
butanone		Freshwater	55.8 mg/l
butanone		Freshwater sediments	284.7 mg/kg d.w.
butanone		Intermittent releases to water	55.8 mg/l
butanone		Marine water	55.8 mg/l
butanone		Marine water sediments	284.7 mg/kg d.w.
butanone		Sewage Treatment Plant	709 mg/l
toluene		Agricultural soil	2.89 mg/kg d.w.
toluene		Freshwater	0.68 mg/l
toluene		Sewage Treatment Plant	13.61 mg/l

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

8.2. Exposure controls

In addition, refer to the annex for more information.

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:
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.
Gloves made from the following material(s) are recommended:

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

Applicable Norms/Standards
Use gloves tested to EN 374

Respiratory protection

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

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

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

8.2.3. Environmental exposure controls
Refer to Annex

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Colour	Grey
Odor	Ketones.
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	>= 78.5 ºC [*Details:*MEK]
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	>= -4 ºC [*Details:*MEK]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	*substance/mixture is non-soluble (in water)*
Kinematic Viscosity	847,457.627118644 mm²/sec
Water solubility	*No data available.*
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	*No data available.*
Density	1.1 - 1.2 g/cm3
Relative density	1.1 - 1.2 [*Ref Std:*WATER=1]
Relative Vapor Density	*No data available.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*No data available.*
Percent volatile	32 - 40 %

SECTION 10: Stability and reactivity

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

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

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

10.5 Incompatible materials
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

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

Signs and Symptoms of Exposure

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

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

Skin contact
Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic Skin Reaction (non-photo induced) in sensitive people: Signs/symptoms may include redness, swelling, blistering, and itching.

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

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

Additional Health Effects:

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

Prolonged or repeated exposure may cause target organ effects:
Ocular effects: Signs/symptoms may include blurred or significantly impaired vision. Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Olfactory effects: Signs/symptoms may

include decreased ability to detect odours and complete loss of smell. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate.

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

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

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
butanone	Dermal	Rabbit	LD50 > 8,050 mg/kg
butanone	Inhalation-Vapour (4 hours)	Rat	LC50 34.5 mg/l
butanone	Ingestion	Rat	LD50 2,737 mg/kg
toluene	Dermal	Rat	LD50 12,000 mg/kg
toluene	Inhalation-Vapour (4 hours)	Rat	LC50 30 mg/l
toluene	Ingestion	Rat	LD50 5,550 mg/kg
Acrylonitrile - butadiene polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile - butadiene polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
4-methylpentan-2-one	Dermal	Rabbit	LD50 > 16,000 mg/kg
4-methylpentan-2-one	Inhalation-Vapour (4 hours)	Rat	LC50 >8.2,<16.4 mg/l
4-methylpentan-2-one	Ingestion	Rat	LD50 3,038 mg/kg
Formo-Phenolic resin	Dermal		LD50 estimated to be > 5,000 mg/kg
Formo-Phenolic resin	Ingestion	Rat	LD50 5,660 mg/kg
Poly(Vinyl Chloride)	Dermal		LD50 estimated to be > 5,000 mg/kg
Poly(Vinyl Chloride)	Ingestion		LD50 estimated to be > 5,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
2,6-di-tert-butyl-p-cresol	Dermal	Rat	LD50 > 2,000 mg/kg
2,6-di-tert-butyl-p-cresol	Ingestion	Rat	LD50 > 2,930 mg/kg
4-tert-butylphenol	Dermal	Rabbit	LD50 2,318 mg/kg
4-tert-butylphenol	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.6 mg/l
4-tert-butylphenol	Ingestion	Rat	LD50 4,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Limestone	Rabbit	No significant irritation
butanone	Rabbit	Minimal irritation
toluene	Rabbit	Irritant
Acrylonitrile - butadiene polymer	Professional judgement	No significant irritation
4-methylpentan-2-one	Rabbit	Mild irritant
Poly(Vinyl Chloride)	Professional judgement	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
2,6-di-tert-butyl-p-cresol	Human and animal	Minimal irritation
4-tert-butylphenol	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Limestone	Rabbit	No significant irritation
butanone	Rabbit	Severe irritant
toluene	Rabbit	Moderate irritant
Acrylonitrile - butadiene polymer	Professional judgement	No significant irritation
4-methylpentan-2-one	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
2,6-di-tert-butyl-p-cresol	Rabbit	Mild irritant
4-tert-butylphenol	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
toluene	Guinea pig	Not classified
4-methylpentan-2-one	Guinea pig	Not classified
Formo-Phenolic resin	Human	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Human and animal	Not classified
2,6-di-tert-butyl-p-cresol	Human	Not classified
4-tert-butylphenol	Human and animal	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
butanone	In Vitro	Not mutagenic
toluene	In Vitro	Not mutagenic
toluene	In vivo	Not mutagenic
4-methylpentan-2-one	In Vitro	Not mutagenic

Poly(Vinyl Chloride)	In Vitro	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
2,6-di-tert-butyl-p-cresol	In Vitro	Not mutagenic
2,6-di-tert-butyl-p-cresol	In vivo	Not mutagenic
4-tert-butylphenol	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
butanone	Inhalation	Human	Not carcinogenic
toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
4-methylpentan-2-one	Inhalation	Multiple animal species	Carcinogenic.
Poly(Vinyl Chloride)	Not specified.	Rat	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
2,6-di-tert-butyl-p-cresol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
4-tert-butylphenol	Ingestion	Multiple animal species	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
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
butanone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation
toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse
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
Poly(Vinyl Chloride)	Not specified.	Not classified for development	Mouse	NOAEL Not available	during gestation
2,6-di-tert-butyl-p-cresol	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-di-tert-butyl-p-cresol	Ingestion	Not classified for male reproduction	Rat	NOAEL 500	2 generation

				mg/kg/day	
2,6-di-tert-butyl-p-cresol	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	2 generation
4-tert-butylphenol	Ingestion	Not classified for male reproduction	Rat	NOAEL 600 mg/kg/day	2 generation
4-tert-butylphenol	Ingestion	Not classified for female reproduction	Rat	NOAEL 600 mg/kg/day	2 generation
4-tert-butylphenol	Ingestion	Not classified for development	Rat	NOAEL 70 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Limestone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
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
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
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	May cause respiratory irritation	Human	NOAEL 0.9 mg/l	7 minutes
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
4-tert-butylphenol	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	LOAEL 5.6 mg/l	4 hours

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Limestone	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
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	Not classified	Rat	NOAEL 14.7 mg/l	90 days

		system | muscles				
butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	7 days
butanone	Ingestion	nervous system	Not classified	Rat	NOAEL 173 mg/kg/day	90 days
toluene	Inhalation	auditory system | eyes | olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
toluene	Inhalation	nervous system	May cause damage to organs though 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
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 |	Not classified	Rat	NOAEL 1,040 mg/kg/day	120 days

		respiratory system				
Poly(Vinyl Chloride)	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 0.013 mg/l	22 months
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
2,6-di-tert-butyl-p-cresol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	28 days
2,6-di-tert-butyl-p-cresol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-di-tert-butyl-p-cresol	Ingestion	blood	Not classified	Rat	LOAEL 420 mg/kg/day	40 days
2,6-di-tert-butyl-p-cresol	Ingestion	endocrine system	Not classified	Rat	NOAEL 25 mg/kg/day	2 generation
2,6-di-tert-butyl-p-cresol	Ingestion	heart	Not classified	Mouse	NOAEL 3,480 mg/kg/day	10 weeks
4-tert-butylphenol	Ingestion	endocrine system | liver | kidney and/or bladder	Not classified	Rat	NOAEL 600 mg/kg/day	2 generation
4-tert-butylphenol	Ingestion	blood	Not classified	Rat	NOAEL 200 mg/kg	6 weeks

Aspiration Hazard

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

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

11.2. Information on other hazards

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

SECTION 12: Ecological information

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

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Limestone	1317-65-3	Green algae	Estimated	72 hours	EC50	>100 mg/l
Limestone	1317-65-3	Rainbow trout	Estimated	96 hours	LC50	>100 mg/l
Limestone	1317-65-3	Water flea	Estimated	48 hours	EC50	>100 mg/l
Limestone	1317-65-3	Green algae	Estimated	72 hours	EC10	>100 mg/l
Acrylonitrile - butadiene polymer	9003-18-3		Data not available or insufficient for			N/A

			classification			
butanone	78-93-3	Activated sludge	Experimental	12 hours	IC50	1,873 mg/l
butanone	78-93-3	Bacteria	Experimental	16 hours	NOEC	1,150 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	EC50	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	EC10	1,289 mg/l
butanone	78-93-3	Water flea	Experimental	21 days	NOEC	100 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)
Formo-Phenolic resin	Trade Secret		Data not available or insufficient for classification			N/A
4-methylpentan-2-one	108-10-1	Activated sludge	Experimental	30 minutes	EC50	>1,000 mg/l
4-methylpentan-2-one	108-10-1	Fathead minnow	Experimental	96 hours	LC50	505 mg/l
4-methylpentan-2-one	108-10-1	Green Algae	Experimental	96 hours	EC50	400 mg/l
4-methylpentan-2-one	108-10-1	Water flea	Experimental	48 hours	EC50	170 mg/l
4-methylpentan-2-one	108-10-1	Fathead minnow	Experimental	32 days	NOEC	57 mg/l
4-methylpentan-2-one	108-10-1	Water flea	Experimental	21 days	NOEC	78 mg/l
Nitrile rubber	Trade Secret		Data not available or insufficient for classification			N/A
Poly(Vinyl Chloride)	9002-86-2		Data not available or insufficient for classification			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
2,6-di-tert-butyl-p-cresol	Trade Secret	Activated sludge	Experimental	3 hours	EC50	>10,000 mg/l
2,6-di-tert-butyl-p-cresol	Trade Secret	Green algae	Experimental	72 hours	EC50	>0.4 mg/l
2,6-di-tert-butyl-p-cresol	Trade Secret	Water flea	Experimental	48 hours	EC50	0.48 mg/l
2,6-di-tert-butyl-p-cresol	Trade Secret	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
2,6-di-tert-butyl-p-cresol	Trade Secret	Green algae	Experimental	72 hours	EC10	0.4 mg/l
2,6-di-tert-butyl-p-cresol	Trade Secret	Medaka	Experimental	42 days	NOEC	0.053 mg/l
2,6-di-tert-butyl-p-cresol	Trade Secret	Water flea	Experimental	21 days	NOEC	0.023 mg/l
4-tert-butylphenol	98-54-4	Ciliated protozoa	Experimental	60 hours	IC50	18.4 mg/l
4-tert-butylphenol	98-54-4	Crustacea other	Experimental	96 hours	LC50	1.9 mg/l
4-tert-butylphenol	98-54-4	Green Algae	Experimental	72 hours	EC50	14 mg/l
4-tert-butylphenol	98-54-4	Medaka	Experimental	96 hours	LC50	5.1 mg/l
4-tert-butylphenol	98-54-4	Water flea	Experimental	48 hours	EC50	3.9 mg/l
4-tert-butylphenol	98-54-4	Fathead minnow	Experimental	128 days	NOEC	0.01 mg/l
4-tert-butylphenol	98-54-4	Green Algae	Experimental	72 hours	NOEC	0.32 mg/l
4-tert-butylphenol	98-54-4	Water flea	Experimental	21 days	NOEC	0.73 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Limestone	1317-65-3	Data not availbl-insufficient			N/A	
Acrylonitrile - butadiene polymer	9003-18-3	Data not availbl-insufficient			N/A	
butanone	78-93-3	Experimental Biodegradation	28 days	BOD	98 % BOD/ThBOD	OECD 301D - Closed bottle test
toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 % BOD/ThBOD	APHA Std Meth Water/Wastewater
Formo-Phenolic resin	Trade Secret	Experimental Biodegradation	28 days	CO2 evolution	0 %CO2 evolution/THC O2 evolution	
4-methylpentan-2-one	108-10-1	Experimental Photolysis		Photolytic half-life (in air)	2.28 days (t 1/2)	Non-standard method
4-methylpentan-2-one	108-10-1	Experimental Biodegradation	14 days	BOD	84 % weight	OECD 301C - MITI test (I)
Nitrile rubber	Trade Secret	Data not availbl-insufficient			N/A	
Poly(Vinyl Chloride)	9002-86-2	Data not availbl-insufficient			N/A	
Titanium dioxide	13463-67-7	Data not availbl-insufficient			N/A	
2,6-di-tert-butyl-p-cresol	Trade Secret	Data not availbl-			N/A	

		insufficient				
4-tert-butylphenol	98-54-4	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	98 % weight	Non-standard method

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Limestone	1317-65-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile - butadiene polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
butanone	78-93-3	Experimental Bioconcentration		Log Kow	0.29	Non-standard method
toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	
Formo-Phenolic resin	Trade Secret	Estimated Bioconcentration		Bioaccumulation factor	7.4	Non-standard method
4-methylpentan-2-one	108-10-1	Experimental Bioconcentration		Log Kow	1.31	Non-standard method
Nitrile rubber	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Poly(Vinyl Chloride)	9002-86-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation factor	9.6	Non-standard method
2,6-di-tert-butyl-p-cresol	Trade Secret	Experimental BCF-Carp	56 days	Bioaccumulation factor	1277	OECD 305E - Bioaccumulation flow-through fish test
4-tert-butylphenol	98-54-4	Experimental BCF-Carp	56 days	Bioaccumulation factor	88	OECD 305E - Bioaccumulation flow-through fish test

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 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. Endocrine disrupting properties

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

12.7. Other adverse effects

Material	CAS Nbr	Ozone Depletion Potential	Global Warming Potential
methyl isobutyl ketone	108-10-1	0	

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

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

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

EU waste code (product as sold)

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

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	UN1139	UN1139	UN1139
14.2 UN proper shipping name	COATING SOLUTION	COATING SOLUTION	COATING SOLUTION
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	Not Environmentally Hazardous	Not applicable	Not a Marine Pollutant
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	No data available.	No Data Available	No Data Available
Control Temperature	No data available.	No Data Available	No Data Available
Emergency Temperature	No data available.	No Data Available	No Data Available
ADR Tunnel Code	(E)	Not Applicable	Not Applicable

ADR Classification Code	F1	Not Applicable	Not Applicable
ADR Transport Category	2	Not Applicable	Not Applicable
ADR Multiplier	0	0	0
IMDG Segregation Code	Not applicable.	Not Applicable	NONE
Transport not Permitted	Not applicable.	Not Applicable	Not Applicable

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
2,6-di-tert-butyl-p-cresol	Trade Secret	Gr. 3: Not classifiable	International Agency for Research on Cancer
4-methylpentan-2-one	108-10-1	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Poly(Vinyl Chloride)	9002-86-2	Gr. 3: Not classifiable	International Agency for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
toluene	108-88-3	Gr. 3: Not classifiable	International Agency for Research on Cancer

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

Ingredient	CAS Nbr
toluene	108-88-3

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

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

Ingredient	CAS Nbr
4-tert-butylphenol	98-54-4

Authorization status: listed in the Candidate List of Substances of Very High Concern for Authorization

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained

substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
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.
H351i	Suspected of causing cancer by inhalation.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
EU Section 09: pH information information was added.
Industrial Use of Coatings: Section 16: Annex information was modified.
Professional Use of Coatings: Section 16: Annex information was modified.
Section 1: Emergency telephone information was modified.
CLP: Ingredient table information was modified.
CLP Remark(phrase) information was deleted.
Label: CLP Classification information was modified.
Label: CLP Percent Unknown 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 Target Organ Hazard Statement information was modified.
Section 03: Composition table % Column heading information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 03: Substance not applicable information was added.
Section 04: First Aid - Symptoms and Effects (CLP) information was added.
Section 04: Information on toxicological effects information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 6: Accidental release clean-up information information was modified.
Section 7: Precautions safe handling information information was modified.
Section 8: DNEL table row information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 8: PNEC table row information was modified.
Section 09: Color information was added.
Section 9: Evaporation Rate information information was deleted.
Section 9: Explosive properties information information was deleted.
Section 09: Kinematic Viscosity information information was added.
Section 9: Melting point information information was modified.

Section 09: Odor information was added.
Sections 3 and 9: Odour, colour, grade information information was deleted.
Section 9: Oxidising properties information information was deleted.
Section 9: pH information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 9: Vapour density value information was added.
Section 9: Vapour density value information was deleted.
Section 9: Viscosity information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Aspiration Hazard Table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Classification disclaimer information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: No endocrine disruptor information available warning information was added.
Section 11: Reproductive and/or Developmental Effects text information was deleted.
Section 11: Reproductive Hazards information information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Reproductive/developmental effects information information was added.
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 11: Target Organs - Single Table information was modified.
Section 12: 12.6. Endocrine Disrupting Properties information was added.
Section 12: 12.7. Other adverse effects information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Contact manufacturer for more detail. information was deleted.
Section 12: Mobility in soil information information was added.
Section 12: No endocrine disruptor information available warning information was added.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 13: 13.1. Waste disposal note information was modified.
Section 14 Classification Code – Main Heading information was added.
Section 14 Classification Code – Regulation Data information was added.
Section 14 Control Temperature – Main Heading information was added.
Section 14 Control Temperature – Regulation Data information was added.
Section 14 Disclaimer Information information was added.
Section 14 Emergency Temperature – Main Heading information was added.
Section 14 Emergency Temperature – Regulation Data information was added.
Section 14 Hazard Class + Sub Risk – Main Heading information was added.
Section 14 Hazard Class + Sub Risk – Regulation Data information was added.
Section 14 Hazardous/Not Hazardous for Transportation information was added.
Section 14 Multiplier – Main Heading information was added.
Section 14 Multiplier – Regulation Data information was added.
Section 14 Other Dangerous Goods – Main Heading information was added.
Section 14 Other Dangerous Goods – Regulation Data information was added.
Section 14 Packing Group – Main Heading information was added.
Section 14 Packing Group – Regulation Data information was added.
Section 14 Proper Shipping Name information was added.
Section 14 Regulations – Main Headings information was added.
Section 14 Segregation – Regulation Data information was added.
Section 14 Segregation Code – Main Heading information was added.
Section 14 Special Precautions – Main Heading information was added.
Section 14 Special Precautions – Regulation Data information was added.
Section 14 Transport Category – Main Heading information was added.
Section 14 Transport Category – Regulation Data information was added.

Section 14 Transport in bulk – Regulation Data information was added.
Section 14 Transport in bulk according to Annex II of Marpol and the IBC Code – Main Heading information was added.
Section 14 Transport Not Permitted – Main Heading information was added.
Section 14 Transport Not Permitted – Regulation Data information was added.
Section 14 Tunnel Code – Main Heading information was added.
Section 14 Tunnel Code – Regulation Data information was added.
Section 14 UN Number Column data information was added.
Section 14 UN Number information was added.
Section 15: Authorization status under REACH: SVHC Authorization ingredient information information was added.
Section 15: Carcinogenicity information information was modified.
Section 15: Regulations - Inventories information was deleted.
Section 15: Restrictions on manufacture ingredients information information was added.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.
Sectio 16: UK disclaimer information was deleted.

Annex

1. Title	
Substance identification	butanone; EC No. 201-159-0; CAS Nbr 78-93-3;
Exposure Scenario Name	Industrial Use of Coatings
Lifecycle Stage	Use at industrial sites
Contributing activities	PROC 05 -Mixing or blending in batch processes PROC 07 -Industrial spraying PROC 08a -Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC 08b -Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC 10 -Roller application or brushing ERC 04 -Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
Processes, tasks and activities covered	Application of product. Mixing operations (open systems). Transfer of substances/mixtures into small containers e.g. tubes , bottles or small reservoirs.
2. Operational conditions and risk management measures	
Operating Conditions	**Physical state:**Liquid. **General operating conditions:** Duration of exposure per day at workplace [for one worker]: 8 hours/day; **Task: PROC07**; Air exchange rate:: 10 - 15 ;
Risk management measures	Under the operational conditions described above the following risk management measures apply: **General risk management measures:** **Human health:** Goggles - Chemical resistant; **Environmental:** None needed; ; The following task-specific risk management measures apply in addition to those listed above: **Task: Transferring Material**; **Human Health**; Half-facepiece air-purifying respirator; **Task: PROC05**;

	Human Health; Local exhaust ventilation; **Task: PROC07**; **Human Health**; Half-facepiece air-purifying respirator; **Task: PROC10**; **Human Health**; Provide extract ventilation to points where emissions occur;
Waste management measures	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

1. Title	
Substance identification	toluene; EC No. 203-625-9; CAS Nbr 108-88-3;
Exposure Scenario Name	Industrial Use of Coatings
Lifecycle Stage	Use at industrial sites
Contributing activities	PROC 07 -Industrial spraying PROC 10 -Roller application or brushing ERC 04 -Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
Processes, tasks and activities covered	Application of product with a roller or brush. Spraying of substances/mixtures.
2. Operational conditions and risk management measures	
Operating Conditions	**Physical state:**Liquid. **General operating conditions:** Assumes use at not more than 20°C above ambient temperature; Duration of use: 8 hours/day; Emission days per year: 300 days/year; Indoors with good general ventilation;
Risk management measures	Under the operational conditions described above the following risk management measures apply: **General risk management measures:** **Human health:** None needed; **Environmental:** None needed;
Waste management measures	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

1. Title	
Substance identification	butanone; EC No. 201-159-0; CAS Nbr 78-93-3;
Exposure Scenario Name	Professional Use of Coatings
Lifecycle Stage	Widespread use by professional workers
Contributing activities	PROC 05 -Mixing or blending in batch processes

	PROC 08a -Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC 08b -Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC 10 -Roller application or brushing ERC 08a -Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
Processes, tasks and activities covered	Application of product. Mixing operations (open systems). Transfer of substances/mixtures into small containers e.g. tubes , bottles or small reservoirs.
2. Operational conditions and risk management measures	
Operating Conditions	**Physical state:**Liquid. **General operating conditions:** Duration of exposure per day at workplace [for one worker]: 8 hours/day;
Risk management measures	Under the operational conditions described above the following risk management measures apply: **General risk management measures:** **Human health:** Goggles - Chemical resistant; Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour); **Environmental:** None needed; ; The following task-specific risk management measures apply in addition to those listed above: **Task: Transferring Material**; **Human Health**; Half-facepiece air-purifying respirator; **Task: Mixing**; **Human Health**; Half-facepiece air-purifying respirator;
Waste management measures	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

1. Title	
Substance identification	toluene; EC No. 203-625-9; CAS Nbr 108-88-3;
Exposure Scenario Name	Professional Use of Coatings
Lifecycle Stage	Widespread use by professional workers
Contributing activities	PROC 10 -Roller application or brushing PROC 11 -Non industrial spraying ERC 08a -Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
Processes, tasks and activities covered	Application of product with a roller or brush. Spraying of substances/mixtures.
2. Operational conditions and risk management measures	
Operating Conditions	**Physical state:**Liquid. **General operating conditions:** Assumes use at not more than 20°C above ambient temperature; Duration of use: 8 hours/day; Indoors with good general ventilation;
Risk management measures	Under the operational conditions described above the following risk management

	measures apply: **General risk management measures:** **Human health:** None needed; **Environmental:** None needed;
Waste management measures	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

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