

# Safety Data Sheet

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 Document group:
 06-5112-5
 Version number:
 21.01

 Revision date:
 29/11/2022
 Supersedes date:
 04/09/2020

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 Scotch-Weld(tm) EC-776 Fuel resistant coating.

#### **Product Identification Numbers**

FS-9100-1683-1

7000079851

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

#### **Identified uses**

**Protective Coating** 

## 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.

# **CLASSIFICATION:**

Flammable Liquid, Category 2 - Flam. Liq. 2; H225 Acute Toxicity, Category 4 - Acute Tox. 4; H332

Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318

Skin Sensitization, Category 1 - Skin Sens. 1; H317 Germ Cell Mutagenicity, Category 2 - Muta. 2; H341

Carcinogenicity, Category 1B - Carc. 1B; H350

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

#### **Pictograms**



#### **Ingredients:**

Ingredient	CAS Nbr	EC No.	% by Wt
4-methylpentan-2-one	108-10-1	203-550-1	50 - 60
phenol	108-95-2	203-632-7	1 - 5
formaldehyde	50-00-0	200-001-8	< 1

#### **HAZARD STATEMENTS:**

H225 Highly flammable liquid and vapour.

Harmful if inhaled. H332

H314 Causes severe skin burns and eye damage. May cause an allergic skin reaction. H317 Suspected of causing genetic defects. H341 H350 May cause cancer.

May cause drowsiness or dizziness. H336

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.

P260A Do not breathe vapours.

P280J Wear protective gloves, protective clothing, respiratory protection, and eye/face protection.

**Response:** 

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or

shower.

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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor/physician.

#### SUPPLEMENTAL INFORMATION:

## **Supplemental Precautionary Statements:**

Restricted to professional users.

Contains 14% of components with unknown hazards to the aquatic environment.

#### 2.3. Other hazards

None known.

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

# **SECTION 3: Composition/information on ingredients**

# 3.1. Substances

Not applicable

## 3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation
			(EC) No. 1272/2008 [CLP]
4-methylpentan-2-one	(CAS-No.) 108-10-1	50 - 60	Flam. Liq. 2, H225
	(EC-No.) 203-550-1		Acute Tox. 4, H332(LC50 = 11 mg/l
	(REACH-No.) 01-		**ATE values per Annex VI**)
	2119473980-30		Eye Irrit. 2, H319
			Carc. 2, H351
			STOT SE 3, H336
			EUH066
Cresol-formaldehyde-phenol polymer	(CAS-No.) 9039-25-2	10 - 20	Substance not classified as hazardous
Acrylonitrile - butadiene polymer	(CAS-No.) 9003-18-3	10 - 20	Substance not classified as hazardous
butanone	(CAS-No.) 78-93-3	5 - 10	Flam. Liq. 2, H225
	(EC-No.) 201-159-0		Eye Irrit. 2, H319
	(REACH-No.) 01-		STOT SE 3, H336
	2119457290-43		EUH066
ethanol	(CAS-No.) 64-17-5	5 - 10	Flam. Liq. 2, H225
	(EC-No.) 200-578-6		Eye Irrit. 2, H319
	(REACH-No.) 01-		
	2119457610-43		
phenol	(CAS-No.) 108-95-2	1 - 5	Acute Tox. 3, H331
	(EC-No.) 203-632-7		Acute Tox. 3, H311
	(REACH-No.) 01-		Acute Tox. 3, H301
	2119471329-32		Skin Corr. 1B, H314
			Muta. 2, H341
			STOT RE 2, H373
			Aquatic Chronic 2, H411
2,5-Di-tert-pentylhydroquinone	(CAS-No.) 79-74-3	< 0.1	Acute Tox. 4, H302
	(EC-No.) 201-222-2		Aquatic Acute 1, H400,M=10
			Aquatic Chronic 1, H410,M=10

mix-cresol	(CAS-No.) 1319-77-3	0.1 - 1	Acute Tox. 3, H311
	(EC-No.) 215-293-2		Acute Tox. 3, H301
			Skin Corr. 1B, H314
			Nota C
			Eye Dam. 1, H318
			Aquatic Chronic 3, H412
formaldehyde	(CAS-No.) 50-00-0	< 1	Acute Tox. 2, H330
	(EC-No.) 200-001-8		Acute Tox. 3, H311
	(REACH-No.) 01-		Acute Tox. 3, H301
	2119488953-20		Skin Corr. 1B, H314
			Eye Dam. 1, H318
			Skin Sens. 1A, H317
			Muta. 2, H341
			Carc. 1B, H350
			STOT SE 3, H335
			Nota B,D

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
ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (REACH-No.) 01- 2119457610-43	(C >= 50%) Eye Irrit. 2, H319
formaldehyde	(CAS-No.) 50-00-0 (EC-No.) 200-001-8 (REACH-No.) 01- 2119488953-20	(C >= 25%) Skin Corr. 1B, H314 (5% =< C < 25%) Skin Irrit. 2, H315 (C >= 25%) Eye Dam. 1, H318 (5% =< C < 25%) Eye Irrit. 2, H319 (C >= 0.2%) Skin Sens. 1A, H317 (C >= 5%) STOT SE 3, H335
phenol	(CAS-No.) 108-95-2 (EC-No.) 203-632-7 (REACH-No.) 01- 2119471329-32	(C >= 3%) Skin Corr. 1B, H314 (1% =< C < 3%) Skin Irrit. 2, H315 (1% =< C < 3%) Eye Irrit. 2, H319

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 flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

#### 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 CLP classification include:

Harmful if inhaled. Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Allergic skin reaction (redness, swelling, blistering, and itching). Toxic by eye contact. Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

## 4.3. Indication of any immediate medical attention and special treatment required

Not applicable.

# **SECTION 5: Fire-fighting measures**

#### 5.1. Extinguishing media

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

#### 5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

# **Hazardous Decomposition or By-Products**

<u>Substance</u>	<u>Condition</u>
Aldehydes.	During combustion.
Hydrocarbons.	During combustion.
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Hydrogen cyanide.	During combustion.
Ketones.	During combustion.
Oxides of nitrogen.	During combustion.

#### 5.3. Advice for fire-fighters

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

# **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. 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 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. 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

Keep cool. 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	Ireland OELs	TWA(8 hours):83 mg/m3(20 ppm);TWA(8 hours):20 ppm(83 mg/m3);STEL(15 minutes):208 mg/m3(50 ppm);STEL(15 minutes):50 ppm(208 mg/m3)	SKIN
phenol	108-95-2	Ireland OELs	TWA(8 hours):8 mg/m3(2 ppm);TWA(8 hours):2 ppm(8 mg/m3);STEL(15 minutes):16 mg/m3(4 ppm);STEL(15 minutes):4 ppm(16 mg/m3)	SKIN
mix-cresol	1319-77-3	Ireland OELs	TWA(8 hours):22 mg/m3(5 ppm);TWA(8 hours):5 ppm(22 mg/m3)	SKIN
formaldehyde	50-00-0	Ireland OELs	TWA(8 hours):0.5 ppm(0.62 mg/m3);TWA(8 hours):0.37 mg/m3(0.3 ppm);STEL(15 minutes):0.6 ppm(0.738	Expiration date 11 Jul 24, Respiratory/Dermal Sensitizer

mg/m3);STEL(15

minutes): 0.738 mg/m 3(0.6)

ppm)

ethanol 64-17-5 Ireland OELs STEL(15 minutes):1000 ppm

butanone 78-93-3 Ireland OELs TWA(8 hours):600 mg/m3(200 SKIN

ppm);TWA(8 hours):200 ppm(600 mg/m3);STEL(15 minutes):900 mg/m3(300 ppm);STEL(15 minutes):300

ppm(900 mg/m3)

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

CEIL: Ceiling

#### **Biological limit values**

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

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

### 8.2. Exposure controls

### 8.2.1. Engineering controls

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

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

## Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

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. Wear protective gloves and 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
Butyl rubber.	0.5	4-8 hours
Fluoroelastomer	0.4	4-8 hours
Polymer laminate	>0.30	4-8 hours

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

Applicable Norms/Standards
Use gloves tested to EN 374

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 – Butyl rubber Apron - polymer laminate

# Respiratory protection

In case of inadequate ventilation wear 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 formaldehyde

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 type formaldehyde

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.
Specific Physical Form: Liquid.

ColourTransparent AmberOdorCharacteristic KetonesOdour thresholdNo data available.

Melting point/freezing pointNo data available.Boiling point/boiling range=55 °C [Details:CONDITIONS: (ethyl alcohol)]

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

No data available.

No data available.

Flash point >=-6 °C [Details:Flash point : MEK]

Autoignition temperatureNo data available.Decomposition temperatureNo data available.

pH substance/mixture is non-soluble (in water)

Kinematic Viscosity 18 mm²/sec Water solubility Nil

**Solubility- non-water**Partition coefficient: n-octanol/water
No data available.
No data available.

Vapour pressure 5,612.9 Pa [Details: CONDITIONS: @ 68F]

**Density** *No data available.* 

**Relative density** 0.85 - 0.9 [*Ref Std*:WATER=1]

**Relative Vapour Density** 3 [Ref Std:AIR=1]

# 9.2. Other information

9.2.2 Other safety characteristics

**EU Volatile Organic Compounds** *No data available.* 

**Evaporation rate** [Ref Std:ETHER=1]No data available.

Molecular weight Not applicable.

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#### Percent volatile

74 - 78 % weight

# **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

Harmful if inhaled. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Allergic Respiratory Reaction in sensitive people: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

May cause additional health effects (see below).

#### Skin contact

Corrosive (skin burns): Signs/symptoms may include localised redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

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:

Cardiac effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal. Hematopoietic effects: Signs/symptoms may include generalised weakness, fatigue and alterations in numbers of circulating blood cells. Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure. Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

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

Cardiac effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal. Hematopoietic effects: Signs/symptoms may include generalised weakness, fatigue and alterations in numbers of circulating blood cells. Liver effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure. Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

#### Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

#### **Additional information:**

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

# 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 >10 - =20 mg/l
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
4-methylpentan-2-one	Dermal	Rabbit	LD50 > 16,000 mg/kg
4-methylpentan-2-one	Inhalation- Vapour (4 hours)	Rat	LC50 11 mg/l

4-methylpentan-2-one	Ingestion	Rat	LD50 3,038 mg/kg
Cresol-formaldehyde-phenol polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Cresol-formaldehyde-phenol polymer	Inhalation-		LC50 estimated to be > 12.5 mg/l
	Dust/Mist		
Cresol-formaldehyde-phenol polymer	Ingestion		LD50 estimated to be > 5,000 mg/kg
Acrylonitrile - butadiene polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile - butadiene polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
butanone	Dermal	Rabbit	LD50 > 8,050 mg/kg
butanone	Inhalation-	Rat	LC50 34.5 mg/l
	Vapour (4		
	hours)		
butanone	Ingestion	Rat	LD50 2,737 mg/kg
ethanol	Dermal	Rabbit	LD50 > 15,800 mg/kg
ethanol	Inhalation-	Rat	LC50 124.7 mg/l
	Vapour (4		
	hours)		
ethanol	Ingestion	Rat	LD50 17,800 mg/kg
phenol	Inhalation-		LC50 estimated to be 2 - 10 mg/l
	Vapour		
phenol	Dermal	Rat	LD50 670 mg/kg
phenol	Ingestion	Rat	LD50 340 mg/kg
mix-cresol	Dermal	Rat	LD50 620 mg/kg
mix-cresol	Ingestion	Rat	LD50 242 mg/kg
formaldehyde	Dermal	Rabbit	LD50 270 mg/kg
formaldehyde	Inhalation-	Rat	LC50 470 ppm
	Gas (4		
	hours)		
formaldehyde	Ingestion	Rat	LD50 800 mg/kg
2,5-Di-tert-pentylhydroquinone	Dermal	Rabbit	LD50 > 3,160 mg/kg
2,5-Di-tert-pentylhydroquinone	Ingestion	Rat	LD50 1,900 mg/kg
ATE = acute toxicity estimate	· •		

ATE = acute toxicity estimate

# Skin Corrosion/Irritation

Name	Species	Value
4-methylpentan-2-one	Rabbit	Mild irritant
Cresol-formaldehyde-phenol polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
Acrylonitrile - butadiene polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
butanone	Rabbit	Minimal irritation
ethanol	Rabbit	No significant irritation
phenol	Rat	Corrosive
mix-cresol	Rabbit	Corrosive
formaldehyde	official	Corrosive
	classificat	
	ion	
2,5-Di-tert-pentylhydroquinone	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
4-methylpentan-2-one	Rabbit	Mild irritant
Cresol-formaldehyde-phenol polymer	Professio nal judgemen t	Mild irritant
Acrylonitrile - butadiene polymer	Professio nal	No significant irritation

\_\_\_\_\_\_

	judgemen	
	t	
butanone	Rabbit	Severe irritant
ethanol	Rabbit	Severe irritant
phenol	Rabbit	Corrosive
mix-cresol	similar	Corrosive
	health	
	hazards	
formaldehyde	official	Corrosive
	classificat	
	ion	
2,5-Di-tert-pentylhydroquinone	Rabbit	Mild irritant

## **Skin Sensitisation**

Name	Species	Value
4-methylpentan-2-one	Guinea	Not classified
	pig	
ethanol	Human	Not classified
phenol	Guinea	Not classified
	pig	
formaldehyde	Guinea	Sensitising
	pig	
2,5-Di-tert-pentylhydroquinone	Human	Not classified

**Respiratory Sensitisation** 

Name	Species	Value
formaldehyde	Human	Some positive data exist, but the data are not sufficient for classification

**Germ Cell Mutagenicity** 

Name	Route	Value
4-methylpentan-2-one	In Vitro	Not mutagenic
butanone	In Vitro	Not mutagenic
ethanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
ethanol	In vivo	Some positive data exist, but the data are not sufficient for classification
phenol	In Vitro	Some positive data exist, but the data are not sufficient for classification
phenol	In vivo	Some positive data exist, but the data are not sufficient for classification
mix-cresol	In vivo	Not mutagenic
mix-cresol	In Vitro	Some positive data exist, but the data are not sufficient for classification
formaldehyde	In Vitro	Some positive data exist, but the data are not sufficient for classification
formaldehyde	In vivo	Mutagenic

Carcinogenicity

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

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			sufficient for classification
mix-cresol	Dermal	Mouse	Some positive data exist, but the data are not
			sufficient for classification
mix-cresol	Ingestion	Mouse	Some positive data exist, but the data are not
			sufficient for classification
formaldehyde	Not	Human	Carcinogenic.
	specified.	and	
		animal	

# Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
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
butanone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation
ethanol	Inhalation	Not classified for development	Rat	NOAEL 38 mg/l	during gestation
ethanol	Ingestion	Not classified for development	Rat	NOAEL 5,200 mg/kg/day	premating & during gestation
phenol	Ingestion	Not classified for female reproduction	Rat	NOAEL 321 mg/kg/day	2 generation
phenol	Ingestion	Not classified for male reproduction	Rat	NOAEL 321 mg/kg/day	2 generation
phenol	Ingestion	Not classified for development	Rat	NOAEL 120 mg/kg/day	during organogenesis
mix-cresol	Ingestion	Not classified for female reproduction	Rat	NOAEL 450 mg/kg/day	2 generation
mix-cresol	Ingestion	Not classified for male reproduction	Rat	NOAEL 450 mg/kg/day	2 generation
mix-cresol	Ingestion	Not classified for development	Rat	NOAEL 175 mg/kg/day	during organogenesis
formaldehyde	Ingestion	Not classified for male reproduction	Rat	NOAEL 100 mg/kg	not applicable
formaldehyde	Inhalation	Not classified for development	Rat	NOAEL 10 ppm	during gestation

# Target Organ(s)

**Specific Target Organ Toxicity - single exposure** 

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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
butanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classifica	NOAEL Not available	

				tion		
butanone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
butanone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
butanone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 mg/kg	not applicable
ethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL 9.4 mg/l	not available
ethanol	Inhalation	central nervous system depression	Not classified	Human and animal	NOAEL not available	
ethanol	Ingestion	central nervous system depression	Not classified	Multiple animal species	NOAEL not available	
ethanol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg	
phenol	Dermal	hematoppoitic system	Causes damage to organs	Rat	LOAEL 108 mg/kg	not available
phenol	Dermal	heart   nervous system   kidney and/or bladder	Causes damage to organs	Rat	LOAEL 107 mg/kg	24 hours
phenol	Dermal	liver	Not classified	Human	NOAEL Not available	not available
phenol	Inhalation	respiratory irritation	May cause respiratory irritation	Multiple animal species	NOAEL Not available	not available
phenol	Ingestion	kidney and/or bladder	Causes damage to organs	Rat	NOAEL 120 mg/kg/day	not applicable
phenol	Ingestion	respiratory system	Causes damage to organs	Human	NOAEL not available	poisoning and/or abuse
phenol	Ingestion	endocrine system   liver	Not classified	Rat	NOAEL 224 mg/kg	not applicable
phenol	Ingestion	heart	Not classified	Human	NOAEL Not available	poisoning and/or abuse
mix-cresol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available.	
mix-cresol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 68 mg/kg	
formaldehyde	Inhalation	respiratory system	Causes damage to organs	Rat	LOAEL 128 ppm	6 hours
formaldehyde	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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	Not classified	Multiple	NOAEL 0.41	90 days

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		hematopoietic system		animal species	mg/l	
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
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
ethanol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 124 mg/l	365 days
ethanol	Inhalation	hematopoietic system   immune system	Not classified	Rat	NOAEL 25 mg/l	14 days
ethanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 8,000 mg/kg/day	4 months
ethanol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg/day	7 days
phenol	Dermal	nervous system	May cause damage to organs though prolonged or repeated exposure	Rabbit	LOAEL 260 mg/kg/day	18 days
phenol	Inhalation	heart   liver   kidney and/or bladder   respiratory system	Causes damage to organs through prolonged or repeated exposure	Guinea pig	LOAEL 0.1 mg/l	41 days
phenol	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Multiple animal species	LOAEL 0.1 mg/l	14 days
phenol	Inhalation	hematopoietic system	Not classified	Human	NOAEL Not available	occupational exposure
phenol	Inhalation	immune system	Not classified	Rat	NOAEL 0.1 mg/l	2 weeks
phenol	Ingestion	kidney and/or bladder	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 12 mg/kg/day	14 days
phenol	Ingestion	hematopoietic system	Causes damage to organs through prolonged or repeated exposure	Mouse	LOAEL 1.8 mg/kg/day	28 days
phenol	Ingestion	nervous system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 308 mg/kg/day	13 weeks
phenol	Ingestion	liver	Not classified	Rat	NOAEL 40 mg/kg/day	14 days
phenol	Ingestion	respiratory system	Not classified	Rat	LOAEL 40 mg/kg/day	14 days
phenol	Ingestion	immune system	Not classified	Mouse	NOAEL 1.8 mg/kg/day	28 days
phenol	Ingestion	endocrine system	Not classified	Rat	NOAEL 120	14 days

					mg/kg/day	
phenol	Ingestion	skin   bone, teeth, nails, and/or hair	Not classified	Multiple animal species	NOAEL 1,204 mg/kg/day	103 weeks
mix-cresol	Ingestion	nervous system	Not classified	Rat	NOAEL 450 mg/kg/day	90 days
mix-cresol	Ingestion	hematopoietic system   liver   immune system   kidney and/or bladder	Not classified	Rat	NOAEL 2,024 mg/kg/day	90 days
formaldehyde	Dermal	respiratory system	Not classified	Mouse	NOAEL 80 mg/kg/day	60 weeks
formaldehyde	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.3 ppm	28 months
formaldehyde	Inhalation	liver	Not classified	Rat	NOAEL 20 ppm	13 weeks
formaldehyde	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 15 ppm	3 weeks
formaldehyde	Inhalation	nervous system	Not classified	Mouse	NOAEL 10 ppm	13 weeks
formaldehyde	Inhalation	endocrine system   immune system   muscles   kidney and/or bladder	Not classified	Rat	NOAEL 15 ppm	28 months
formaldehyde	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 15 ppm	2 years
formaldehyde	Inhalation	eyes   vascular system	Not classified	Rat	NOAEL 14.3 ppm	2 years
formaldehyde	Inhalation	heart	Not classified	Mouse	NOAEL 14.3 ppm	2 years
formaldehyde	Ingestion	liver	Not classified	Rat	NOAEL 300 mg/kg/day	2 years
formaldehyde	Ingestion	immune system	Not classified	Rat	NOAEL 20 mg/kg/day	4 weeks
formaldehyde	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 15 mg/kg/day	24 months
formaldehyde	Ingestion	nervous system	Not classified	Rat	NOAEL 109 mg/kg/day	2 years
formaldehyde	Ingestion	heart   endocrine system   hematopoietic system   respiratory system   vascular system	Not classified	Rat	NOAEL 300 mg/kg/day	2 years
formaldehyde	Ingestion	skin   muscles   eyes	Not classified	Rat	NOAEL 109 mg/kg/day	2 years

#### Asniration Hazard

Aspiration Hazara					
Name	Value				
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	Туре	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
Acrylonitrile - butadiene polymer	9003-18-3	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Cresol-formaldehyde- phenol polymer	9039-25-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
ethanol	64-17-5	Fathead minnow	Experimental	96 hours	LC50	14,200 mg/l
ethanol	64-17-5	Fish	Experimental	96 hours	LC50	11,000 mg/l
ethanol	64-17-5	Green algae	Experimental	72 hours	EC50	275 mg/l
ethanol	64-17-5	Water flea	Experimental	48 hours	LC50	5,012 mg/l
ethanol	64-17-5	Green algae	Experimental	72 hours	ErC10	11.5 mg/l
ethanol	64-17-5	Water flea	Experimental	10 days	NOEC	9.6 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
phenol	108-95-2	Bacteria	Experimental	24 hours	IC50	21 mg/l
phenol	108-95-2	Green algae	Experimental	96 hours	EC50	61.1 mg/l
phenol	108-95-2	Rainbow trout	Experimental	96 hours	LC50	8.9 mg/l
phenol	108-95-2	Water flea	Experimental	48 hours	EC50	3.1 mg/l
phenol	108-95-2	Fish	Experimental	60 days	NOEC	0.077 mg/l
phenol	108-95-2	Water flea	Experimental	16 days	NOEC	0.16 mg/l
2,5-Di-tert- pentylhydroquinone	79-74-3	Activated sludge	Experimental	3 hours	EC50	>100 mg/l
2,5-Di-tert- pentylhydroquinone	79-74-3	Bluegill	Experimental	96 hours	LC50	0.013 mg/l

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79-74-3	Green algae	Experimental	96 hours	EC50	2.9 mg/l
79-74-3	Water flea	Experimental	48 hours	LC50	0.9 mg/l
1319-77-3	Activated sludge	Estimated	3 hours	EC50	461.4 mg/l
1319-77-3	Fish	Estimated	96 hours	LC50	3.36 mg/l
1319-77-3	Fish	Estimated	96 hours	LC50	4.4 mg/l
1319-77-3	Water flea	Estimated	48 hours	EC50	7.7 mg/l
1319-77-3	Fathead minnow	Estimated	32 days	NOEC	1.35 mg/l
1319-77-3	Water flea	Estimated	21 days	NOEC	1 mg/l
50-00-0	Green algae	Experimental	72 hours	ErC50	4.89 mg/l
50-00-0	Striped bass	Experimental	96 hours	LC50	6.7 mg/l
50-00-0	Water flea	Experimental	48 hours	EC50	5.8 mg/l
50-00-0	Medaka	Experimental	28 days	NOEC	>=48 mg/l
50-00-0	Water flea	Experimental	21 days	NOEC	>=6.4 mg/l
50-00-0	Activated sludge	Experimental	3 hours	EC50	19
	79-74-3 1319-77-3 1319-77-3 1319-77-3 1319-77-3 1319-77-3 50-00-0 50-00-0 50-00-0 50-00-0	79-74-3 Water flea  1319-77-3 Activated sludge  1319-77-3 Fish  1319-77-3 Water flea  1319-77-3 Water flea  1319-77-3 Water flea  50-00-0 Green algae  50-00-0 Striped bass  50-00-0 Water flea  50-00-0 Water flea	79-74-3 Water flea Experimental 1319-77-3 Activated sludge Estimated 1319-77-3 Fish Estimated 1319-77-3 Water flea Estimated 1319-77-3 Water flea Estimated 1319-77-3 Water flea Estimated 1319-77-3 Water flea Estimated 50-00-0 Green algae Experimental 50-00-0 Water flea Experimental	79-74-3         Water flea         Experimental         48 hours           1319-77-3         Activated sludge         Estimated         3 hours           1319-77-3         Fish         Estimated         96 hours           1319-77-3         Fish         Estimated         48 hours           1319-77-3         Water flea         Estimated         32 days           1319-77-3         Water flea         Estimated         21 days           50-00-0         Green algae         Experimental         72 hours           50-00-0         Striped bass         Experimental         96 hours           50-00-0         Water flea         Experimental         28 days           50-00-0         Water flea         Experimental         28 days           50-00-0         Water flea         Experimental         21 days	79-74-3 Water flea Experimental 48 hours LC50 1319-77-3 Activated sludge Estimated 3 hours EC50 1319-77-3 Fish Estimated 96 hours LC50 1319-77-3 Fish Estimated 96 hours LC50 1319-77-3 Water flea Estimated 48 hours EC50 1319-77-3 Water flea Estimated 32 days NOEC 1319-77-3 Water flea Estimated 21 days NOEC 50-00-0 Green algae Experimental 72 hours EC50 50-00-0 Striped bass Experimental 96 hours LC50 50-00-0 Water flea Experimental 48 hours EC50 50-00-0 Water flea Experimental 28 days NOEC 50-00-0 Water flea Experimental 28 days NOEC

# 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/ThO D	OECD 301F - Manometric respirometry
4-methylpentan-2-one	108-10-1	Experimental Photolysis		Photolytic half-life (in air)	2.3 days (t 1/2)	
Acrylonitrile - butadiene polymer	9003-18-3	Data not availbl- insufficient	N/A	N/A	N/A	N/A
Cresol-formaldehyde- phenol polymer	9039-25-2	Data not availbl- insufficient	N/A	N/A	N/A	N/A
ethanol	64-17-5	Experimental Biodegradation	14 days	BOD	89 %BOD/ThO D	OECD 301C - MITI test (I)
butanone	78-93-3	Experimental Biodegradation	28 days	BOD	98 %BOD/ThO D	OECD 301D - Closed bottle test
phenol	108-95-2	Experimental Biodegradation	100 hours	BOD	62 %BOD/ThO D	OECD 301C - MITI test (I)
2,5-Di-tert- pentylhydroquinone	79-74-3	Experimental Biodegradation	38 days		1 %CO2 evolution/THC O2 evolution	similar to OECD 301B
mix-cresol	1319-77-3	Estimated Biodegradation	28 days	BOD	65 %BOD/ThO D	OECD 301D - Closed bottle test
formaldehyde	50-00-0	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	99 %removal of DOC	OECD 301A - DOC Die Away Test
formaldehyde	50-00-0	Experimental Biodegradation	160 days	BOD	99.5 %BOD/C OD	OECD 303A - Simulated Aerobic

# 12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
4-methylpentan-2-one		Experimental Bioconcentration		Log Kow	1.9	OECD 117 log Kow HPLC method
Acrylonitrile - butadiene polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cresol-formaldehyde-	9039-25-2	Data not available	N/A	N/A	N/A	N/A

phenol polymer		or insufficient for classification			
ethanol	64-17-5	Experimental Bioconcentration	Log Kow	-0.35	
butanone	78-93-3	Experimental Bioconcentration	Log Kow	0.3	OECD 117 log Kow HPLC method
phenol	108-95-2	Experimental Bioconcentration	Log Kow	1.47	
2,5-Di-tert- pentylhydroquinone	79-74-3	Experimental Bioconcentration	Log Kow	3.3	OECD 117 log Kow HPLC method
mix-cresol	1319-77-3	Experimental Bioconcentration	Log Kow	1.95	
formaldehyde	50-00-0	Experimental Bioconcentration	Log Kow	0.35	

#### 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 <sup>TM</sup>
formaldehyde	1	Estimated Mobility in Soil	Koc	15.9 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

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

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

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

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

# EU waste code (product as sold)

08 01 11\* Waste paint and varnish containing organic solvents or other dangerous substances

# **SECTION 14: Transportation information**

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number or ID number	UN1133	UN1133	UN1133
14.2 UN proper shipping name	ADHESIVES	ADHESIVES	ADHESIVES(PHENOL)
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	Environmentally Hazardous	Not applicable	Marine Pollutant
14.6 Special precautions for user		Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
<b>Emergency Temperature</b>	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
formaldehyde	50-00-0	Carc. 1B	Regulation (EC) No.
			1272/2008, Table 3.1
formaldehyde	50-00-0	Grp. 1: Carcinogenic to	International Agency
		humans	for Research on Cancer
4-methylpentan-2-one	108-10-1	Carc. 2	Regulation (EC) No.
			1272/2008, Table 3.1
4-methylpentan-2-one	108-10-1	Grp. 2B: Possible human	International Agency

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phenol carc. for Research on Cancer

Gr. 3: Not classifiable International Agency

for Research on Cancer

for Research on Cancer

for Research on Cancer

# Global inventory status

Contact 3M for more information.

#### **DIRECTIVE 2012/18/EU**

Seveso hazard categories, Annex 1, Part 1 None

Seveso named dangerous substances, Annex 1, Part 2

Dangerous Substances	Identifier(s)	Qualifying quantity (tonnes	Qualifying quantity (tonnes) for the application of		
		Lower-tier requirements	Upper-tier requirements		
ethanol	64-17-5	10	50		
formaldehyde	50-00-0	5	50		
butanone	78-93-3	10	50		
4-methylpentan-2-one	108-10-1	10	50		
phenol	108-95-2	50	200		

# Regulation (EU) No 649/2012

No chemicals listed

# 15.2. Chemical Safety Assessment

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

# **SECTION 16: Other information**

# List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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.
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:**

EU Section 09: pH information information was added.

Section 1: Emergency telephone information was modified.

Label: CLP Classification information was modified.

Label: CLP Precautionary - Disposal information was deleted.

Label: CLP Precautionary - Prevention information was modified.

Label: CLP Precautionary - Response information was modified.

Label: CLP Supplemental Precautionary Statements information was deleted.

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

Section 03: Composition table % Column heading information was added.

Section 3: Composition/Information of ingredients table information was modified.

Section 03: SCL table information was added.

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 8: glove data value information was modified.

Section 8: Occupational exposure limit table information was modified.

OEL Reg Agency Desc information was modified.

Section 8: Personal Protection - Respiratory Information information was modified.

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 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: Carcinogenicity Table information was modified.

Section 11: Classification disclaimer information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Health Effects - Additional Information information was deleted.

Section 11: No endocrine disruptor information available warning information was added.

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: Target Organs - Repeated Table information was added.

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

Prints No Data if Adverse effects information is not present 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 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 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 in bulk Regulation Data information was added.
- Section 14 Marine transport in bulk according to IMO instruments Main Heading information was added.
- Section 14 UN Number Column data information was added.
- Section 14 UN Number information was added.
- Section 15: Carcinogenicity information information was modified.
- Section 15: Regulations Inventories information was added.
- Section 15: Seveso Substance Text 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.

Section 2: No PBT/vPvB information available warning information was added.

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