

# Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

# **SECTION 1: Identification**

#### 1.1. Product identifier

3M Process Colour 888I, Green

#### **Product Identification Numbers**

75-0301-1092-0

#### 1.2. Recommended use and restrictions on use

#### Recommended use

Professional printing ink for use in traffic safety systems.

For Industrial or Professional use only.

# 1.3. Supplier's details

Address: 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113

**Telephone:** 136 136

E Mail: productinfo.au@mmm.com

Website: www.3m.com.au

### 1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

# **SECTION 2: Hazard identification**

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

#### 2.1. Classification of the substance or mixture

Flammable liquid: Category 3.

Serious Eye Damage/Irritation: Category 1.

# 2.2. Label elements

The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product

label.

# Signal word

Danger

#### **Symbols**

Flame |Corrosion |

**Pictograms** 





#### Hazard statements

H226 Flammable liquid and vapour.

H318 Causes serious eye damage.

### **Precautionary statements**

**Prevention:** 

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof electrical, ventilating and lighting equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P280A Wear eye/face protection.

**Response:** 

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

with water or shower.

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.

P370 + P378 In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry

chemical or carbon dioxide to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

# 2.3. Other assigned/identified product hazards

None known.

# 2.4. Other hazards which do not result in classification

Causes mild skin irritation. May be harmful if inhaled.

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

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Dipropylene glycol methyl ether acetate	88917-22-0	30 - 60
2-Propenoic acid, 2-methyl-, polymer with	28262-63-7	10 - 30
butyl 2-methyl-2-propenoate and methyl 2-		
methyl-2-propenoate		
Acrylic polymers	Trade Secret	10 - 30
1-Methoxy-2-propyl acetate	108-65-6	5 - 10
Cyclohexanone	108-94-1	5 - 10
Vinyl acetate-vinyl alcohol-vinyl chloride	Trade Secret	3 - 7
polymer		
Green pigment	Trade Secret	1 - 5
Xylene	1330-20-7	0.1 - 1
2,3-Epoxypropyl neodecanoate	26761-45-5	< 0.3
Dibutyltin dilaurate	77-58-7	< 0.2
Ethylbenzene	100-41-4	< 0.2
N-Butyl methacrylate	97-88-1	< 0.2

# **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

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

# Eye contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

#### If swallowed

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

#### 4.2. Most important symptoms and effects, both acute and delayed

Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

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

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

#### 5.1. Suitable 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. Exposure to extreme heat can give rise to thermal decomposition.

### **Hazardous Decomposition or By-Products**

Substance
Hydrocarbons.
Carbon monoxide.
Carbon dioxide.
Hydrogen Chloride
Hydrogen Fluoride

# **Condition**

During combustion.
During combustion.
During combustion.
During combustion.
During combustion.
During combustion.

## 5.3. Special protective actions 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.

Hazchem Code: •3Y

# **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 vapors, in accordance with good industrial hygiene practice. WARNING! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

# **6.2.** Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

# 6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire extinguishing foam that is resistant to polar solvents. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with 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 in accordance with applicable local/regional/national/international regulations.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators...) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

#### 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from acids. Store away from

oxidising agents.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### Occupational exposure limits

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

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethylbenzene	100-41-4	ACGIH	TWA:20 ppm	A3: Confirmed animal carcinogen.
Ethylbenzene	100-41-4	Australia OELs	TWA(8 hours):434 mg/m3(100 ppm);STEL(15 minutes):543 mg/m3(125 ppm)	
1-Methoxy-2-propyl acetate	108-65-6	AIHA	TWA:50 ppm	
1-Methoxy-2-propyl acetate	108-65-6	Australia OELs	TWA(8 hours):274 mg/m3(50 ppm);STEL(15 minutes):548 mg/m3(100 ppm)	SKIN
Cyclohexanone	108-94-1	ACGIH	TWA:20 ppm;STEL:50 ppm	A3: Confirmed animal carcinogen. Danger of cutaneous absorption.
Cyclohexanone	108-94-1	Australia OELs	TWA(8 hours):100 mg/m3(25 ppm)	SKIN
Xylene	1330-20-7	ACGIH	TWA:100 ppm;STEL:150 ppm	A4: Not class. as human carcin
Xylene	1330-20-7	Australia OELs	TWA(8 hours):350 mg/m3(80 ppm);STEL(15 minutes):655 mg/m3(150 ppm)	
Tin, organic compounds	77-58-7	ACGIH	TWA(as Sn):0.1 mg/m3;STEL(as Sn):0.2 mg/m3	A4: Not class. as human carcin, SKIN
Tin, organic compounds	77-58-7	Australia OELs	TWA(as Sn)(8 hours):0.1 mg/m3;STEL(as Sn)(15 minutes):0.2 mg/m3	SKIN

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

Australia OELs: Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment

CMRG: Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Sen: Sensitiser

Sk: Absorption through the skin may be a significant source of exposure.

#### 8.2. Exposure controls

## 8.2.1. Engineering controls

For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines. Use explosion-proof ventilation equipment. 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.

# 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.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337.

### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate

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

Select and use gloves according to AS/NZ 2161.

#### 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:

For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use a positive pressure supplied-air respirator.

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. Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

# **SECTION 9: Physical and chemical properties**

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

Physical state	Liquid.
Specific Physical Form:	Liquid.
Colour	Green
Odour	Sweet Ether
Odour threshold	No data available.
рН	Not applicable.
Melting point/Freezing point	Not applicable.
Boiling point/Initial boiling point/Boiling range	>=140 °C
Flash point	42.2 °C [Test Method: Tagliabue closed cup]
Evaporation rate	<=0.4 [Ref Std:BUOAC=1]
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	1.1 % volume
Flammable Limits(UEL)	8.6 % volume
Vapour pressure	<=493.3 Pa [@ 20 °C ]

Vapor Density and/or Relative Vapor Density	No data available.
Density	0.95 g/ml
Relative density	0.95 [Ref Std:WATER=1]
Water solubility	No data available.
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity/Kinematic Viscosity	1,000 - 1,200 mPa-s [Details:DTM-300 (#3 @ 30 rpm)]
Volatile organic compounds (VOC)	600 - 800 g/l [Details: As Packaged]
Percent volatile	65 - 75 %
VOC less H2O & exempt solvents	No data available.

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

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

### 10.2 Chemical stability

Stable.

#### 10.3. Conditions to avoid

Sparks and/or flames.

## 10.4. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

#### 10.5 Incompatible materials

Strong acids.

Strong oxidising agents.

#### 10.6 Hazardous decomposition products

### **Substance**

**Condition** 

None known.

Dust created by grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

# **SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

#### 11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

#### Inhalation

May be harmful if inhaled. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge,

headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

#### Skin contact

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### Eve 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

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

#### **Additional Health Effects:**

#### **Reproductive/Developmental Toxicity:**

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

### Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

#### **Toxicological Data**

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

#### **Acute Toxicity**

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000
			mg/kg
Overall product	Inhalation-Vapour(4		No data available; calculated ATE >20 -
	hr)		=50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000
			mg/kg
Dipropylene glycol methyl ether	Dermal	Rat	LD50 > 2,000  mg/kg
acetate			
Dipropylene glycol methyl ether	Inhalation-Dust/Mist	Rat	LC50 > 5.7  mg/l
acetate	(4 hours)		
Dipropylene glycol methyl ether	Ingestion	Rat	LD50 > 5,000  mg/kg
acetate			
2-Propenoic acid, 2-methyl-, polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
with butyl 2-methyl-2-propenoate			
and methyl 2-methyl-2-propenoate			
2-Propenoic acid, 2-methyl-, polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
with butyl 2-methyl-2-propenoate			
and methyl 2-methyl-2-propenoate			
1-Methoxy-2-propyl acetate	Dermal	Rabbit	LD50 > 5,000 mg/kg
1-Methoxy-2-propyl acetate	Inhalation-Vapour (4	Rat	LC50 > 28.8  mg/l
	hours)		
1-Methoxy-2-propyl acetate	Ingestion	Rat	LD50 8,532 mg/kg
Cyclohexanone	Dermal	Rabbit	LD50 >794, <3160 mg/kg
Cyclohexanone	Inhalation-Vapour (4	Rat	LC50 > 6.2  mg/l
	hours)		
Cyclohexanone	Ingestion	Rat	LD50 1,296 mg/kg
Vinyl acetate-vinyl alcohol-vinyl	Dermal	Rabbit	LD50 > 8,000 mg/kg
chloride polymer			
Vinyl acetate-vinyl alcohol-vinyl	Ingestion	Rat	LD50 > 8,000 mg/kg
chloride polymer			

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Xylene	Dermal	Rabbit	LD50 > 4,200 mg/kg
Xylene	Inhalation-Vapour (4	Rat	LC50 29 mg/l
	hours)		
Xylene	Ingestion	Rat	LD50 3,523 mg/kg
2,3-Epoxypropyl neodecanoate	Dermal	Rat	LD50 > 2,000  mg/kg
2,3-Epoxypropyl neodecanoate	Ingestion	Rat	LD50 > 2,000  mg/kg
Ethylbenzene	Dermal	Rabbit	LD50 15,433 mg/kg
Ethylbenzene	Inhalation-Vapour (4	Rat	LC50 17.4 mg/l
	hours)		
Ethylbenzene	Ingestion	Rat	LD50 4,769 mg/kg
N-Butyl methacrylate	Dermal	Rabbit	LD50 > 2,000  mg/kg
N-Butyl methacrylate	Inhalation-Dust/Mist	Rat	LC50 > 27 mg/l
	(4 hours)		
N-Butyl methacrylate	Ingestion	Rat	LD50 > 2,000 mg/kg
Dibutyltin dilaurate	Dermal	Rat	LD50 > 2,000 mg/kg
Dibutyltin dilaurate	Ingestion	Rat	LD50 1,290 mg/kg

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

Name	Species	Value
Dipropylene glycol methyl ether acetate	Rabbit	No significant irritation
1-Methoxy-2-propyl acetate	Rabbit	No significant irritation
Cyclohexanone	Rabbit	Irritant
Vinyl acetate-vinyl alcohol-vinyl chloride polymer	Professional judgement	No significant irritation
Xylene	Rabbit	Mild irritant
2,3-Epoxypropyl neodecanoate	Rabbit	No significant irritation
Ethylbenzene	Rabbit	Mild irritant
N-Butyl methacrylate	Rabbit	Irritant
Dibutyltin dilaurate	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Dipropylene glycol methyl ether acetate	Rabbit	No significant irritation
1-Methoxy-2-propyl acetate	Rabbit	Mild irritant
Cyclohexanone	In vitro data	Corrosive
Vinyl acetate-vinyl alcohol-vinyl chloride polymer	Professional judgement	No significant irritation
Xylene	Rabbit	Mild irritant
2,3-Epoxypropyl neodecanoate	Rabbit	No significant irritation
Ethylbenzene	Rabbit	Moderate irritant
N-Butyl methacrylate	Rabbit	Mild irritant
Dibutyltin dilaurate	Rabbit	Corrosive

# **Skin Sensitisation**

Name	Species	Value	
Dipropylene glycol methyl ether acetate	Guinea pig	Not classified	
1-Methoxy-2-propyl acetate	Guinea pig	Not classified	
Cyclohexanone	Guinea pig	Not classified	
2,3-Epoxypropyl neodecanoate	Guinea pig	Sensitising	
Ethylbenzene	Human	Not classified	
N-Butyl methacrylate	Guinea pig	Sensitising	
Dibutyltin dilaurate	Guinea pig	Sensitising	

**Respiratory Sensitisation**For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Dipropylene glycol methyl ether acetate	In Vitro	Not mutagenic
Dipropylene glycol methyl ether acetate	In vivo	Not mutagenic
1-Methoxy-2-propyl acetate	In Vitro	Not mutagenic
Cyclohexanone	In vivo	Not mutagenic
Cyclohexanone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Xylene	In Vitro	Not mutagenic
Xylene	In vivo	Not mutagenic
2,3-Epoxypropyl neodecanoate	In Vitro	Some positive data exist, but the data are not sufficient for classification
2,3-Epoxypropyl neodecanoate	In vivo	Mutagenic
Ethylbenzene	In vivo	Not mutagenic
Ethylbenzene	In Vitro	Some positive data exist, but the data are not sufficient for classification
N-Butyl methacrylate	In Vitro	Not mutagenic
N-Butyl methacrylate	In vivo	Not mutagenic
Dibutyltin dilaurate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Dibutyltin dilaurate	In vivo	Mutagenic

Carcinogenicity

Name	Route	Species	Value
Cyclohexanone	Ingestion	Multiple animal	Some positive data exist, but the data
		species	are not sufficient for classification
Xylene	Dermal	Rat	Not carcinogenic
Xylene	Ingestion	Multiple animal	Not carcinogenic
		species	
Xylene	Inhalation	Human	Some positive data exist, but the data
			are not sufficient for classification
Ethylbenzene	Inhalation	Multiple animal	Carcinogenic.
		species	

# Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
1-Methoxy-2-propyl	Ingestion	Not classified for	Rat	NOAEL	premating & during
acetate		female reproduction		1,000	gestation
				mg/kg/day	
1-Methoxy-2-propyl	Ingestion	Not classified for	Rat	NOAEL	premating & during
acetate		male reproduction		1,000	gestation
				mg/kg/day	
1-Methoxy-2-propyl	Ingestion	Not classified for	Rat	NOAEL	premating & during
acetate		development		1,000	gestation
				mg/kg/day	
1-Methoxy-2-propyl	Inhalation	Not classified for	Rat	NOAEL 21.6	during
acetate		development		mg/l	organogenesis
Cyclohexanone	Inhalation	Not classified for	Rat	NOAEL 4	2 generation
		female reproduction		mg/l	
Cyclohexanone	Inhalation	Not classified for	Rat	NOAEL 2	2 generation
•		male reproduction		mg/l	
Cyclohexanone	Ingestion	Not classified for	Mouse	LOAEL	during
•		development		1,100	organogenesis
		_		mg/kg/day	
Cyclohexanone	Inhalation	Not classified for	Rat	NOAEL 2	2 generation

		development		mg/l	
Xylene	Inhalation	Not classified for	Human	NOAEL Not	occupational
		female reproduction		available	exposure
Xylene	Ingestion	Not classified for	Mouse	NOAEL Not	during
		development		available	organogenesis
Xylene	Inhalation	Not classified for	Multiple animal	NOAEL Not	during gestation
		development	species	available	
Ethylbenzene	Inhalation	Not classified for	Rat	NOAEL 4.3	premating & during
		development		mg/l	gestation
N-Butyl methacrylate	Ingestion	Not classified for	Rat	NOAEL	44 days
		male reproduction		1,000	
				mg/kg/day	
N-Butyl methacrylate	Ingestion	Not classified for	Rat	NOAEL 300	premating & during
		female reproduction		mg/kg/day	gestation
N-Butyl methacrylate	Ingestion	Not classified for	Rabbit	NOAEL 300	during gestation
		development		mg/kg/day	
N-Butyl methacrylate	Inhalation	Not classified for	Rat	NOAEL 1.8	during gestation
		development		mg/l	
Dibutyltin dilaurate	Ingestion	Toxic to female	Rat	NOAEL 2	premating into
		reproduction		mg/kg/day	lactation
Dibutyltin dilaurate	Ingestion	Toxic to development	Rat	NOAEL 2.5	during gestation
				mg/kg/day	

# Lactation

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

# Target Organ(s)

**Specific Target Organ Toxicity - single exposure** 

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
1-Methoxy-2- propyl acetate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Cyclohexanon e	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Guinea pig	LOAEL 16.1 mg/l	6 hours
Cyclohexanon e	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Cyclohexanon e	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Xylene	Inhalation	auditory system	Causes damage to organs	Rat	LOAEL 6.3 mg/l	8 hours
Xylene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Xylene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	

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Xylene	Inhalation	eyes	Not classified	Rat	NOAEL 3.5 mg/l	not available
Xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	eyes	Not classified	Rat	NOAEL 250 mg/kg	not applicable
Ethylbenzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Ethylbenzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
N-Butyl methacrylate	Inhalation	respiratory irritation	May cause respiratory irritation		NOAEL Not available	
Dibutyltin dilaurate	Ingestion	immune system	Causes damage to organs	Rat	LOAEL 5 mg/kg	

**Specific Target Organ Toxicity - repeated exposure** 

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Dipropylene glycol methyl ether acetate	Ingestion	liver   heart   endocrine system   hematopoietic system   kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	4 weeks
1-Methoxy-2- propyl acetate	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 16.2 mg/l	9 days
1-Methoxy-2- propyl acetate	Inhalation	olfactory system	Not classified	Mouse	LOAEL 1.62 mg/l	9 days
1-Methoxy-2- propyl acetate	Inhalation	blood	Not classified	Multiple animal species	NOAEL 16.2 mg/l	9 days
1-Methoxy-2- propyl acetate	Ingestion	endocrine system	Not classified	Rat	NOAEL 1,000 mg/kg/day	44 days
Cyclohexanon e	Inhalation	liver   kidney and/or bladder	Not classified	Rabbit	NOAEL 0.76 mg/l	50 days
Cyclohexanon e	Ingestion	liver	Not classified	Mouse	NOAEL 4,800 mg/kg/day	90 days
Xylene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/l	4 weeks
Xylene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 7.8 mg/l	5 days
Xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Inhalation	heart   endocrine system   gastrointestinal tract   hematopoietic	Not classified	Multiple animal species	NOAEL 3.5 mg/l	13 weeks

	-	1				4
		system   muscles   kidney and/or bladder   respiratory system				
Xylene	Ingestion	auditory system	Not classified	Rat	NOAEL 900 mg/kg/day	2 weeks
Xylene	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Xylene	Ingestion	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	heart   skin   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   nervous system   respiratory system	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
2,3- Epoxypropyl neodecanoate	Ingestion	hematopoietic system   liver	Not classified	Rat	NOAEL 400 mg/kg/day	5 weeks
2,3- Epoxypropyl neodecanoate	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 40 mg/kg/day	5 weeks
Ethylbenzene	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	2 years
Ethylbenzene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 1.1 mg/l	103 weeks
Ethylbenzene	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 3.4 mg/l	28 days
Ethylbenzene	Inhalation	auditory system	Not classified	Rat	NOAEL 2.4 mg/l	5 days
Ethylbenzene	Inhalation	endocrine system	Not classified	Mouse	NOAEL 3.3 mg/l	103 weeks
Ethylbenzene	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Inhalation	bone, teeth, nails, and/or hair   muscles	Not classified	Multiple animal species	NOAEL 4.2 mg/l	90 days
Ethylbenzene	Inhalation	heart   immune system   respiratory system	Not classified	Multiple animal species	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Ingestion	liver   kidney and/or bladder	Not classified	Rat	NOAEL 680 mg/kg/day	6 months
N-Butyl methacrylate	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 11 mg/l	28 days
N-Butyl methacrylate	Inhalation	olfactory system	Not classified	Rat	NOAEL 1.8 mg/l	28 days
N-Butyl methacrylate	Inhalation	heart   endocrine system	Not classified	Rat	NOAEL 11 mg/l	28 days

		hematopoietic system   liver   nervous system   respiratory system				
N-Butyl methacrylate	Ingestion	olfactory system	Not classified	Rat	NOAEL 60 mg/kg/day	90 days
N-Butyl methacrylate	Ingestion	endocrine system   hematopoietic system   liver   nervous system   kidney and/or bladder   heart   immune system	Not classified	Rat	NOAEL 360 mg/kg/day	90 days
Dibutyltin dilaurate	Ingestion	liver	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 2 mg/kg/day	2 weeks
Dibutyltin dilaurate	Ingestion	immune system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.3 mg/kg/day	28 days

**Aspiration Hazard** 

Name	Value
Xylene	Aspiration hazard
Ethylbenzene	Aspiration hazard

### **Exposure Levels**

Refer Section 8.1 Control Parameters of this Safety Data Sheet.

### **Interactive Effects**

Not determined.

# **SECTION 12: Ecological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

#### 12.1. Toxicity

# Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

# Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Number	Organism	Туре	Exposure	Test endpoint	Test result
Dipropylene	88917-22-0	Activated	Experimental	3 hours	EC50	>1,000 mg/l
glycol methyl		sludge				
ether acetate						

Dipropylene	88917-22-0	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
glycol methyl	00917-22-0	Green argae	Experimental	72 Hours	LC30	> 1,000 mg/1
ether acetate						
Dipropylene	88917-22-0	Rainbow trout	Experimental	96 hours	LC50	111 mg/l
glycol methyl	00917-22-0	Kambow trout	Experimental	90 Hours	LC30	1 1 1 111g/1
ether acetate						
Dipropylene	88917-22-0	Water flea	Experimental	48 hours	LC50	1,090 mg/l
glycol methyl	00717-22-0	water fied	Laperinientai	40 Hours	LC30	1,070 mg/1
ether acetate						
Dipropylene	88917-22-0	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
glycol methyl	00717-22-0	Green argae	Laperinientai	72 Hours	NOLC	1,000 mg/1
ether acetate						
2-Propenoic	28262-63-7		Data not			N/A
acid, 2-methyl-,	20202 03 7		available or			11/11
polymer with			insufficient for			
butyl 2-methyl-			classification			
2-propenoate						
and methyl 2-						
methyl-2-						
propenoate						
1-Methoxy-2-	108-65-6	Activated	Experimental	30 minutes	EC10	>1,000 mg/l
propyl acetate		sludge	F			,,,,,,
1-Methoxy-2-	108-65-6	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
propyl acetate			F			,,,,,,
1-Methoxy-2-	108-65-6	Rainbow trout	Experimental	96 hours	LC50	134 mg/l
propyl acetate			F			3
1-Methoxy-2-	108-65-6	Water flea	Experimental	48 hours	EC50	370 mg/l
propyl acetate			1			
1-Methoxy-2-	108-65-6	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
propyl acetate			1			, ,
1-Methoxy-2-	108-65-6	Water flea	Experimental	21 days	NOEC	100 mg/l
propyl acetate			1			
	108-94-1	Activated	Experimental	30 minutes	EC50	>1,000 mg/l
		sludge	1			, ,
Cyclohexanone	108-94-1	Algae or other	Experimental	72 hours	EC50	32.9 mg/l
		aquatic plants	1			
Cyclohexanone	108-94-1	Fathead	Experimental	96 hours	LC50	527 mg/l
		minnow	F			3
Cyclohexanone	108-94-1	Water flea	Experimental	24 hours	EC50	800 mg/l
Cyclohexanone	108-94-1	Algae or other	Experimental	72 hours	EC10	3.56 mg/l
		aquatic plants	F			3
Vinyl acetate-	Trade Secret	1 1	Data not			N/A
vinyl alcohol-			available or			
vinyl chloride			insufficient for			
polymer			classification			
Xylene	1330-20-7	Activated	Estimated	3 hours	NOEC	157 mg/l
		sludge				
Xylene	1330-20-7	Green algae	Estimated	72 hours	EC50	4.36 mg/l
Xylene	1330-20-7	Rainbow trout	Estimated	96 hours	LC50	2.6 mg/l
Xylene	1330-20-7	Water flea	Estimated	48 hours	EC50	3.82 mg/l
Xylene	1330-20-7	Green algae	Estimated	72 hours	NOEC	0.44 mg/l
Xylene	1330-20-7	Rainbow trout	Estimated	56 days	NOEC	>1.3 mg/l
Xylene	1330-20-7	Water flea	Estimated	7 days	NOEC	0.96 mg/l
2,3-	26761-45-5	Activated	Experimental	3 hours	NOEC	500 mg/l
4,5-	120101- <del>1</del> 3-3	12 renvaieu	глениена	J Hours	LIOLC	200 IIIg/1

Epoxypropyl		sludge				
neodecanoate						
2,3-	26761-45-5	Green algae	Experimental	72 hours	EC50	2.9 mg/l
Epoxypropyl						
neodecanoate						
2,3-	26761-45-5	Rainbow trout	Experimental	96 hours	LC50	5 mg/l
Epoxypropyl						
neodecanoate						
2,3-	26761-45-5	Water flea	Experimental	48 hours	EC50	4.8 mg/l
Epoxypropyl						
neodecanoate						
2,3-	26761-45-5	Green algae	Experimental	96 hours	NOEC	1 mg/l
Epoxypropyl						
neodecanoate						
Dibutyltin	77-58-7	Water flea	Experimental	48 hours	IC50	0.17 mg/l
dilaurate			ļ			
Ethylbenzene	100-41-4	Green algae	Estimated	73 hours	EC50	4.36 mg/l
Ethylbenzene	100-41-4	Rainbow trout	Estimated	96 hours	LC50	2.6 mg/l
Ethylbenzene	100-41-4	Water flea	Estimated	48 hours	EC50	3.82 mg/l
Ethylbenzene	100-41-4	Activated	Experimental	49 hours	EC50	130 mg/l
		sludge				
Ethylbenzene	100-41-4	Green algae	Estimated	73 hours	NOEC	0.44 mg/l
Ethylbenzene	100-41-4	Rainbow trout	Estimated	56 days	NOEC	>1.3 mg/l
Ethylbenzene	100-41-4	Water flea	Estimated	7 days	NOEC	0.96 mg/l
N-Butyl	97-88-1	Bacteria	Experimental	18 hours	EC50	>254 mg/l
methacrylate						
N-Butyl	97-88-1	Green algae	Experimental	72 hours	EC50	31.2 mg/l
methacrylate						
N-Butyl	97-88-1	Medaka	Experimental	96 hours	LC50	5.6 mg/l
methacrylate						
N-Butyl	97-88-1	Water flea	Experimental	48 hours	EC50	25 mg/l
methacrylate						
N-Butyl	97-88-1	Green algae	Experimental	72 hours	NOEC	24.8 mg/l
methacrylate						
N-Butyl	97-88-1	Water flea	Experimental	21 days	NOEC	1.1 mg/l
methacrylate						

# 12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Dipropylene	88917-22-0	Estimated	28 days	Dissolv.	90 %removal	OECD 301F -
glycol methyl		Biodegradation		Organic	of DOC	Manometric
ether acetate				Carbon Deplet		respirometry
2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl- 2-propenoate and methyl 2- methyl-2- propenoate	28262-63-7	Data not available- insufficient	N/A	N/A	N/A	N/A
1-Methoxy-2-	108-65-6	Experimental	28 days	BOD	87.2 %BOD/Th	OECD 301C - MITI
propyl acetate		Biodegradation			BOD	test (I)
Cyclohexanone	108-94-1	Experimental	14 days	BOD	87 %BOD/ThB	OECD 301C - MITI

		Biodegradation			OD	test (I)
Vinyl acetate- vinyl alcohol- vinyl chloride polymer	Trade Secret	Data not available- insufficient	N/A	N/A	N/A	N/A
Xylene	1330-20-7	Experimental Photolysis		Photolytic half- life (in air)	1.4 days (t 1/2)	Non-standard method
Xylene	1330-20-7	Experimental Biodegradation	28 days	BOD	90- 98 %BOD/ThB OD	OECD 301F - Manometric respirometry
2,3- Epoxypropyl neodecanoate	26761-45-5	Experimental Hydrolysis		Half-life (t 1/2)	9.9 days (t 1/2)	Non-standard method
2,3- Epoxypropyl neodecanoate	26761-45-5	Experimental Biodegradation	28 days	BOD	11.6 % weight	OECD 301F - Manometric respirometry
Dibutyltin dilaurate	77-58-7	Experimental Biodegradation	39 days	BOD	23 % weight	OECD 301F - Manometric respirometry
Ethylbenzene	100-41-4	Experimental Biodegradation	28 days	BOD	90- 98 %BOD/ThB OD	OECD 301F - Manometric respirometry
N-Butyl methacrylate	97-88-1	Experimental Biodegradation	28 days	BOD	88 %BOD/ThB OD	OECD 301C - MITI test (I)

# 12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Dipropylene	88917-22-0	Experimental		Log Kow	0.61	Non-standard method
glycol methyl		Bioconcentrati				
ether acetate		on				
2-Propenoic	28262-63-7	Data not	N/A	N/A	N/A	N/A
acid, 2-methyl-,		available or				
polymer with		insufficient for				
butyl 2-methyl-		classification				
2-propenoate						
and methyl 2-						
methyl-2-						
propenoate						
1-Methoxy-2-	108-65-6	Experimental		Log Kow	0.36	Non-standard method
propyl acetate		Bioconcentrati				
		on				
Cyclohexanone	108-94-1	Experimental		Log Kow	0.86	Non-standard method
		Bioconcentrati				
		on				
Vinyl acetate-	Trade Secret	Data not	N/A	N/A	N/A	N/A
vinyl alcohol-		available or				
vinyl chloride		insufficient for				
polymer		classification				
Xylene	1330-20-7	Experimental	56 days	Bioaccumulatio	25.9	Non-standard method
		BCF - Rainbow		n factor		
		Trout				
2,3-	26761-45-5	Estimated		Bioaccumulatio	28	Estimated:
Epoxypropyl		Bioconcentrati		n factor		Bioconcentration factor
neodecanoate		on				

Dibutyltin	77-58-7	Experimental	56 days	Bioaccumulatio	110	Non-standard method
dilaurate		BCF - Carp		n factor		
Ethylbenzene	100-41-4	Experimental BCF - Rainbow Trout	, ,	Bioaccumulatio n factor	25.9	Non-standard method
N-Butyl methacrylate	97-88-1	Experimental Bioconcentrati on		Log Kow	2.88	Non-standard method

#### 12.4. Mobility in soil

Please contact manufacturer for more details

#### 12.5 Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

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

Incinerate in a permitted waste incineration facility. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. As a disposal alternative, utilize an acceptable permitted waste disposal facility.

# **SECTION 14: Transport Information**

Australian Dangerous Goods Code (ADG) - Road/Rail Transport

UN No.: UN1210

**Proper shipping name: PRINTING INK** 

Class/Division: 3

**Sub Risk:** Not applicable. **Packing Group:** III

**Special Instructions:** Limited quantity may apply

Hazchem Code: •3Y

**IERG: 16** 

International Air Transport Association (IATA) - Air Transport

UN No.: UN1210

Proper shipping name: PRINTING INK

Class/Division: 3

**Sub Risk:** Not applicable. **Packing Group:** III

International Maritime Dangerous Goods Code (IMDG)- Marine Transport

UN No.: UN1210

Proper shipping name: PRINTING INK

Class/Division: 3
Sub Risk: Not appl

**Sub Risk:** Not applicable. **Packing Group:** III

Marine Pollutant: Not applicable.

**Special Instructions:** Limited quantity may apply

# **SECTION 15: Regulatory information**

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

#### **Australian Inventory Status:**

An ingredient(s) in this product is being introduced under the no unreasonable risk non-cosmetic (<100 Kg) exemption provisions specified in Section 21(4) of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

**Poison Schedule:** This product is intended for Industrial or Professional Use only and therefore is not packaged and labelled in accordance with the requirements of the Standard for the Uniform Scheduling of Medicines and Poisons.

# **SECTION 16: Other information**

#### **Revision information:**

Complete document review.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au