

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

UROCURE CATALYST

Product Number: FUT176

#### SAFETY DATA SHEET

#### 1. IDENTIFICATION

#### **Product Identifiers**

Product Name: UROCURE CATALYST Product Number: FUT176

Recommended Use of the chemical and restrictions on use: Use as a catalyzing agent

# **Company Details**

AUSTRALIAN SPECIALTY INKS PTY LTD A.B.N. 71 002 591 620 17 REAGHS FARM ROAD MINTO NSW 2566 (02) 9603-3399 A/H (02) 9792-7790 or mobile 0414 616247

Email: <u>info@austspecialtyinks.com.au</u>
Website: www.austspecialtyinks.com.au

# **Emergency Telephone Number**

Mob: 0414616247

# 2. HAZARDS IDENTIFICATION

Classified as hazardous according to the Globally Harmonised System of Classification and labeling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7<sup>th</sup> Edition).

Signal Words: Flammable Liquids: Category 3

**DANGER** 

Page 1 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

# **UROCURE CATALYST**

GHS Classification	Pictogram	Hazard Statement
Flammable Liquids, Category 3		H226 Flammable liquid and vapour.
Acute Toxicity – Inhalation, Category 4 Sensitisation of the skin, Category 1 Specific target organ toxicity (single exposure), Inhalative, Category 3		H332 Harmful if inhaled. H317 May cause and allergic skin reaction H335 May cause respiratory irritation
Chronic Aquatic Toxicity, Category 3	***	H412 Toxic to aquatic life with long lasting effects.

# Label elements

Hazardous components which must be listed on the label

Hexamethylene-1,6-diisocyanate Homopolymer n-butyl acetate Solvent naphtha (petroleum), light aromatic

# Precautionary statements:

GENERAL	P101 P102 P103	If medical advice is needed, have product container or label at hand Keep out of reach of children Read label before use
PREVENTATIVE		
	P201	Obtain special instructions before use
	P202	Do not handle until all safety precautions have been read and understood
	P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking
	P233	Keep container tightly closed
	P240	Ground/Bond container and receiving equipment
	P241	Use explosion-proof electrical/ventilating/lighting/equipment
	P242	Use only non-sparking tools
	P243	Take precautionary measures against static discharge
	P261	Avoid breathing fume/mist/vapours/spray
	P271	Use only outdoors or in a well-ventilated area
	P273	Avoid release to the environment

Page 2 of 19 Rev: 1 Issue Date 5/02/2019



17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

**UROCURE CATALYST** Product Number: FUT176

P280 P281	Wear protective gloves/eye protection/face protection Use personal protective equipment as required
P301+P310 P303+P361+P353 P312 P331	If SWALLOWED: Immediately call a POISON CENTER or doctor/physician ON SKIN (or hair) Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Call a POISON CENTER or doctor/physician if you feel unwell Do NOT induce vomiting
P370+P378 P391	In case of fire: Use foam, dry chemical or carbon dioxide for extinction Collect spillage
STORAGE P403+P233 P405	Store in a well ventilated place. Keep container tightly closed Store locked up
DISPOSAL P501	Dispose of contents/container in accordance with local regulations

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Type of product: Mixture

Aliphatic polyisocyanate

ca. 90% in n-butyl acetate/solvent naphtha 100 1:1

Ingredients Names and Proportions

Hexamethalene-1, 6-diisocyanate Homopolymer

Concentration [wt.-%]: ca. 90 CAS No: 28182-81-2

EINECS-No: 931-274-8

GHS Classification: Acute Toxic Cat 4 Inhalative H332 Skin Sensitisation 1 H317 STOT SE 3 H335

Hexamethalene-1, 6-diisocyanate Concentration [wt.-%]: <=0.15

CAS No: 822-06-0 EINECS-No: 212-485-8 Index No: 615-011-00-1

GHS Classification: Acute Toxic Cat 4 Oral H302 Acute Toxic Cat 1 Inhalative H330 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Sens.

Resp. 1 H334 Skin Sens. 1 H317 STOT SE 3 Inhalative H335

n-butyl acetate

Concentration [wt.-%]: ca. 5

CAS No: 123-86-4 EINECS-No: 204-658-1

GHS Classification: Flam. Liq. 3 H226 STOT SE 3 H336

Solvent naphtha (petroleum), light arom.

Concentration [wt.-%]: ca. 5 CAS No: 64742-95-6 EINECS-No: 265-199-0

Index No: 649-356-00-4

Page 3 of 19 Rev: 1 Issue Date 5/02/2019



ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

UROCURE CATALYST Product Number: FUT176

GHS Classification: Flam. Liq. 3 H226 STOT SE 3 H335, H336 Asp. Tox. 1 H304 Aquatic Chronic 2 H411

# 4. FIRST-AID MEASURES

## Description of necessary first aid measures

Inhalation:	Remove victim from exposure if safe to do so. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Remove contaminated clothing.
Skin Contact:	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available. If skin reaction occurs consult a doctor.
Eye Contact:	If in eyes, hold eyes open, flood with preferably lukewarm water for at least 15 minutes. Contact an ophthalmologist.
Ingestion:	If swallowed, do NOT induce vomiting. Transport to nearest medical facility for additional treatment.

# Symptoms caused by exposure

Inhalation:	Breathing of high vapour concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.	
Skin Contact:	May include burning sensation, redness, swelling and/or dried cracked appearance.	
Eye Contact:	May include burning sensation, redness, swelling and/or blurred vision.	
Ingestion:	May include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath and/or fever. Irritation of the gastrointestinal tract.	

Medical attention and special treatment: Treat symptomatically.

# 5. FIRE-FIGHTING MEASURES

# Suitable extinguishing equipment

Alcohol stable foam, water spray or fog, dry chemical powder or carbon dioxide. Do not use water in a jet.

# Specific hazards arising from the chemical

Carbon monoxide and/or carbon dioxide, oxides of nitrogen, isocyanate vapours and traces of hydrogen cyanide may be evolved. In the event of a fire and/or explosion do not breathe fumes.

Page 4 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

**UROCURE CATALYST** 

## Special protective equipment and precautions for fire fighters

Wear air-tight chemical protective clothing and self-contained breathing apparatus.

Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

#### 6. ACCIDENTAL RELEASE MEASURES

# Personal precautions, protective equipment and emergency procedures

Put on protective equipment (see section 8). Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Remove all sources of ignition in the surrounding area. Ensure adequate ventilation/exhaust extraction.

## **Environmental precautions**

Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers.

### Methods and materials for containment and cleaning up

Remove mechanically; cover the remainder with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand). After approximately one hour transfer to waste container and do not seal (evolution of CO2!). Keep damp in a safe ventilated area for several days.

**Reference to other sections:** For further disposal measures see section 13.

### 7. HANDLING AND STORAGE

## Precautions for safe handling

Flammable product. Avoid breathing vapours. Handle and open containers with care in a well-ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. The air should be drawn away from the personnel handling the product. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling and use skin-protecting ointment. Do not eat, drink or smoke in contaminated areas.

Conditions for safe storage, including any incompatibilities

Keep container dry and tightly closed. Store in a cool, well ventilated area, away from sunlight, ignition sources and other sources of heat. Do not store near strong oxidizers and alkalis. Avoid prolonged contact with natural, butyl or nitrile rubbers.

Page 5 of 19 Rev: 1 Issue Date 5/02/2019



ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

UROCURE CATALYST Product Number: FUT176

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

## **Control parameters**

Components with workplace control parameters

Substance	CAS-No.	Basis	Туре	Value	Ceiling Limit Value	Remarks
Hexamethylene- 1,6-diisocyanate Homopolymer	28182-81-2	AU OEL	TWA	.02 mg/m <sup>3</sup>		, measured as NCO
Hexamethylene- 1,6-diisocyanate Homopolymer	28182-81-2	AU OEL	STEL	.07 mg/m <sup>3</sup>		, measured as NCO
n-butyl acetate	123-86-4	AU OEL	TWA	150 ppm 713 mg/m <sup>3</sup>		
n-butyl acetate	123-86-4	AU OEL	STEL	200 ppm 950 mg/m <sup>3</sup>		
Hexamethylene- 1,6-diisocyanate	822-06-0	AU OEL	TWA	.02 mg/m <sup>3</sup>		
Hexamethylene- 1,6-diisocyanate	822-06-0	AU OEL	STEL	.07 mg/m <sup>3</sup>		

## **Exposure controls**

# Respiratory protection:

Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended.

In case of hypersensitivity of the respiratory tract and skin (e.g. asthmatics and those who suffer from chronic bronchitis and chronic skin complaint) it is inadvisable to work with the product.

# Hand protection:

Conditionally suitable materials for protective gloves; EN 374: Nitrile rubber – NBR (>=.35mm) Breakthrough time not tested; dispose of immediately after contamination. Only suitable for brief exposure. In the event of contamination, change protective gloves immediately.

# Eye protection:

Wear eye/face protection.

### Skin and body protection:

Wear suitable protective clothing.

Page 6 of 19 Rev: 1 Issue Date 5/02/2019



17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

**UROCURE CATALYST** Product Number: FUT176

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellowish liquid
Odour:	Solvent like
Odour threshold (ppm):	Data not available
pH:	Not applicable
Melting freezing point (°C):	-31
Initial boiling point and boiling range ( <sup>0</sup> C):	160
Flash point (°C):	50 (closed cup)
Evaporation rate (Butyl acetate = 1):	Data not available
Flammability:	Flammable
Upper/lower flammability or explosive limits (%):	1.0 – 7.5
Vapour pressure (@ 20°C): Hexamethylene-1,6-diisocyate Homopolymer Hexamethylene-1,6-diisocyate n-butyl acetate	< .0001hPa .007 hPa 12 hPa
Vapour density (air = 1):	Not established
Density (g/cm³ @ 20°C):	1.13
Solubility:	Immiscible with water
Partition coefficient n-octanol/water:	Data not available
Auto-ignition temperature (°C):	Not applicable
Decomposition temperature (°C):	Data not available

Page 7 of 19 Rev: 1 Issue Date 5/02/2019



ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

UROCURE CATALYST Product Number: FUT176

Kinematic viscosity (mPa/s @ 25°C):	500

# 10. STABILITY AND REACTIVITY

## Reactivity

Stable under normal conditions of use.

# **Chemical stability**

Stable under normal conditions of use.

# Possibility of hazardous reactions

Exothermic reaction with amines and alcohols; reacts slowly with water forming CO2, in closed containers risk of bursting owing to increase of pressure.

#### Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

#### Incompatible materials

Reacts violently with strong oxidizing agents, nitric acid and sulphuric acid.

### Hazardous decomposition products

Burning can produce carbon monoxide and/or carbon dioxide. A complex mixture of airborne solids, liquids, gases and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

#### 11. TOXICOLOGICAL INFORMATION

Toxicological studies on the product are not yet available.

Please find below data available to us:

# Acute toxicity, oral:

Hexamethylene-1,6-diisocyanate Homopolymer

LD50 rat, female: > 2.500 mg/kg Method: OECD Test Guideline 423

n-butyl acetate

LD50 rat, female: > 14.000 mg/kg

Page 8 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

#### **UROCURE CATALYST**

Solvent naphtha (petroleum), light arom. LD50 rat, female: > 3.592 mg/kg Method: OECD Test Guideline 401

### Acute toxicity, dermal:

Hexamethylene-1,6-diisocyanate Homopolymer

LD50 rat, male/female: > 2.000 mg/kg Method: OECD Test Guideline 402

LD50 rabbit, male/female: > 2.000 mg/kg

Solvent naphtha (petroleum), light arom.

LD50 rabbit: > 3.160 mg/kg

Method: OECD Test Guideline 402

## Acute toxicity, inhalation:

Hexamethylene-1,6-diisocyanate Homopolymer

LC50 rat, female: > .390 mg/l, 4h Test atmosphere: dust/mist

Method: OECD Test Guideline 403

The substance was tested in a form (i.e. specific particle size distribution) that is different from the forms in which the substance is placed on the market and in which it can reasonably be expected to be used. Based on the "split-entry" concept and available data on particle size during end-use of the substance a modified classification for acute inhalation toxicity is justified.

Converted acute toxicity point estimated 1.5 mg/l

Test atmosphere: dust/mist Method: Expert judgement

Assessment: Harmful if inhaled.

n-butyl acetate

LC50 rat: > 21 mg/l 4h Test atmosphere: vapour

Solvent naphtha (petroleum), light arom.

LC50 rat: > 6.193 mg/l 4h

Method: OECD Test Guideline 403

### **Primary skin irritation:**

Hexamethylene-1,6-diisocyanate Homopolymer

Species: rabbit

Exposure duration: 4 h
Result: slight irritant

Classification: No skin irritation Method: OECD Test Guideline 404

Page 9 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

#### **UROCURE CATALYST**

n-butyl ethyl acetate Species: rabbit Exposure duration: 4 h

Exposure duration: 4 r Result: non-irritant

Classification: No skin irritation

Species Human experience

Classification: Repeated exposure may cause skin dryness or cracking.

Naphtha (petroleum), light arom.

Species: rabbit

Exposure duration: 4 h Result: slight irritant

Classification: No skin irritation Method: OECD Test Guideline 404

Species Human experience

Classification: Repeated exposure may cause skin dryness or cracking.

## Primary mucosae irritation:

Hexamethylene-1,6-diisocyanate Homopolymer

Species: rabbit Result: slight irritant

Classification: No eye irritation Method: OECD Test Guideline 405

n-butyl ethyl acetate Species: rabbit Result: slight irritant

Classification: No skin irritation

Naphtha (petroleum), light arom.

Species: rabbit Result: slight irritant

Classification: No skin irritation Method: OECD Test Guideline 405

## Sensitisation:

Hexamethylene-1,6-diisocyanate Homopolymer Skin sensitisation (local lymph node assay (LLNA)):

Species: mouse Result: positive

Classification: May cause sensitisation by skin contact

Method: OECD Test Guideline 429

Page 10 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

#### **UROCURE CATALYST**

Skin sensitisation according to Magnusson/Kligmann (maximizing test):

Species: guinea pig Result: positive

Classification: May cause sensitisation by skin contact

Method: OECD Test Guideline 406

## Respiratory sensitisation

Classification: No classification according to EC Directives 2006/121/EC or 1999/45/EC as respiratory sensitizer.

No pulmonary sensitisation observed in animal tests.

No pulmonary sensitisation potential was observed in guinea pigs after either intradermal or Inhalative induction with polyisocyanate based on isophorone diisocyanate.

n-butyl acetate

Skin sensitisation: Negative

Classification: does not cause skin sensitisation.

Solvent naphtha (petroleum), light arom.

Skin sensitisation: Species: guinea pig Result: negative

Classification: does not cause skin sensitisation.

Method: OECD Test Guideline 406

#### Subaccute, subchronic and prolonged toxicity:

Hexamethylene-1,6-diisocyanate Homopolymer

NOAEL: 3.3 mg/m³ air Application Route: Inhalative Species: rat, male/female

Dose Levels:  $0 - 0.5 - 3.3 - 26.4 \text{ mg/m}^3$ 

Exposure duration: 90 d

Frequency of treatment: 6 hours a day, 5 days a week

Test substance: as aerosol

Method: OECD Test Guideline 413

Evidence of damage to organs other than the organs of respiration was not found.

### Carcinogenicity:

Hexamethylene-1,6-diisocyanate Homopolymer

No data available.

### Reproductive toxicity/Teratogenicity:

Hexamethylene-1,6-diisocyanate Homopolymer

Animal experiments on structurally similar compounds showed no indication of specific reproductive toxicity.

Page 11 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

#### **UROCURE CATALYST**

# Genotoxicity in vitro:

Hexamethylene-1,6-diisocyanate Homopolymer Test type: Salmonella/microsome test (Ames test)

Metabolic activation: with/without

Result: No indication of mutagenic effects.

Method: OECD Test Guideline 471

Test type: Point mutation in mammalian cells (HPRT test)

Metabolic activation: with/without

Result: Negative

Method: OECD Test Guideline 473

Test type: Chomosome aberration test in vitro Test system: Chinese hamster V79 cell line

Metabolic activation: with/without

Result: Negative

Method: OECD Test Guideline 473

## STOT evaluation – one time exposure:

Hexamethylene-1,6-diisocyanate Homopolymer Route of exposure: Inhalative May cause respiratory irritation.

n-butyl acetate

May cause drowsiness or dizziness.

Solvent naphtha (petroleum), light arom.

May cause respiratory irritation. May cause drowsiness or dizziness.

### STOT evaluation – repeated exposure:

Hexamethylene-1,6-diisocyanate Homopolymer Based on available data, the classification criteria are not met.

#### Aspiration toxicity:

Hexamethylene-1,6-diisocyanate Homopolymer Based on available data, the classification criteria are not met.

Solvent naphtha (petroleum), light arom. May be fatal if swallowed and enters airways.

## **CMR Assessment:**

Hexamethylene-1,6-diisocyanate Homopolymer

Carcinogenicity: Based on available data, the classification criteria are not met.

Page 12 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

#### **UROCURE CATALYST**

Mutagenicity: In vitro tests did not show mutagenicity effects.

Tetragenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

# **Toxicology Assessment:**

Hexamethylene-1,6-diisocyanate Homopolymer

Accute effects: Harmful if inhaled.

Sensitisation: May cause sensitisation by skin contact.

#### Additional information:

Hexamethylene-1,6-diisocyanate Homopolymer

Over-exposure, especially when spraying coatings containing isocyanate without the necessary precautions, entails the risk of concentration-dependent irritating effects on eyes, nose, throat and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible. Hypersensitive persons may suffer from these effects even at low isocyanate concentrations, including concentrations below the UK Workplace Exposure Limit (WEL). Prolonged contact with the skin may cause tanning and irritant effects.

Animal tests and other research indicate that skin contact with diisocyanates can play a role in causing isocyanate sensitisation and respiratory reaction.

#### 12. ECOLOGICAL INFORMATION

Ecotoxicological studies of the product are not available.

Do not allow to escape into waterways, wastewater or soil.

Please find below the ecotoxicological data available to us for the components.

## **Toxicity**

#### **Acute Fish toxicity:**

Hexamethylene-1,6-diisocyanate Homopolymer

LC50 > 100 mg/l

Test type: Acute Fish toxicity Species: Danio rerio (zebra fish)

Exposure duration: 96 h

Method: Directive 67/548/EEC, Annex V, C. 1.

n-butyl acetate LC50 64mg/l

Species: Danio rerio (zebra fish)

Exposure duration: 48 h

Page 13 of 19 Rev: 1 Issue Date 5/02/2019



# **UROCURE CATALYST**

Australian Specialty Inks Pty Ltd

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

Product Number: FUT176

Solvent naphtha (petroleum), light arom.

LC50 9.22 mg/l

Species: Oncorhynchus mykiss (rainbow trout)

Exposure duration: 96 h

## Acute toxicity for daphnia:

Hexamethylene-1,6-diisocyanate Homopolymer

EC50 > 100 mg/l

Species: Daphnia magna (Water flea)

Exposure duration: 48 h

Method: Directive 67/548/EEC, Annex V, C. 2.

n-butyl acetate EC50 > 44 mg/l

Species: Daphnia magna (Water flea)

Exposure duration: 48 h

Solvent naphtha (petroleum), light arom.

EC50 > 6.14 mg/l

Species: Daphnia magna (Water flea)

Exposure duration: 48 h

### Acute toxicity for algae:

Hexamethylene-1,6-diisocyanate Homopolymer

ErC50 > 1.000 mg/l

Test type: Growth inhibition

Species: Scenedesmus subspicatus

Exposure duration: 72 h Method: DIN 38412

n-butyl acetate ErC50 > 674 mg/l

Test type: Growth inhibition

Species: Scenedesmus quadricauda (Green algae)

Exposure duration: 72 h

Solvent naphtha (petroleum), light arom.

ErC50 19 mg/l

Species: Scenedesmus subcapitata (Green algae)

Exposure duration: 96 h

Method: OECD Test Guideline 201

Page 14 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

# **UROCURE CATALYST**

# Acute bacterial toxicity:

Hexamethylene-1,6-diisocyanate Homopolymer

EC50 3.828 mg/l

Test type: Respiration inhibition Species: activated sludge Exposure duration: 3 h

Method: OECD Test Guideline 209

n-butyl acetate EC10 956 mg/l

Species: Pseudomonas putida Exposure duration: 18 h

Solvent naphtha (petroleum), light arom.

EC50 1 - 10 mg/l

## **Ecotoxicology Assessment:**

Hexamethylene-1,6-diisocyanate Homopolymer

Acute aquatic toxicity: Based on available data, the classification criteria are not met.

Chronic aquatic toxicity: There is no evidence of a chronic aquatic toxicity.

Impact on Sewage Treatment: Because of the low bacterial toxicity, there is no risk of an adverse effect on

the performance of biological waste water treatment plants.

Solvent naphtha (petroleum), light arom.

Chronic aquatic toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Data based on the safety data sheet (SDS) supplied by the supplier.

#### Persistence and degradability

#### **Biodegradability:**

Hexamethylene-1,6-diisocyanate Homopolymer

Test type: aerobic

Inkolum: activated sludge

Biodegradation: 1%, 28 d, i.e. not readily biodegradable

Method: Direcetive 67/548/EEC Annex V, C./4.E.

n-butyl acetate

Biodegradation: 90%, 28 d, i.e. readily biodegradable

Solvent naphtha (petroleum), light arom.

Readily biodegradable.

Data based on the safety data sheet (SDS) by the supplier.

Page 15 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

#### **UROCURE CATALYST**

Stability in water:

Hexamethylene-1,6-diisocyanate Homopolymer

Test type: Hydrolosis Half life: 7, 7 h at 23°C

The substance hydrolyzes rapidly in water.

# Photodegradation:

Hexamethylene-1,6-diisocyanate Homopolymer

Test type: Phototransformation in air

Temperature: 25°C Sensitiser: OH-radicals

Half life: 10, 3 h

Method: SRC – AOP (calculation)

After evaporation or exposure to the air, the product will be rapidly degraded by photochemical processes.

Studies of hydrolysis products.

# Volatility (Henry's Law constant):

Hexamethylene-1,6-diisocyanate Homopolymer Calculated value = < 0,000001 Pa\*m³/mol at 25°C

Method: Bond-method

The substance as non-volatile from water.

#### Bioaccumulative potential

#### **Bioaccumulation:**

Hexamethylene-1,6-diisocyanate Homopolymer

Bioconcentration factor (BCF) 3, 2

Method: (calculated)

An accumulation in aquatic organisms is not to be expected.

Bioconcentration factor (BCF) 367, 7

Method: (calculated)

An accumulation in aquatic organisms is not to be expected.

Studies of hydrolysis products.

# Mobility in soil

# Distribution among environmental compartments:

Hexamethylene-1,6-diisocyanate Homopolymer

Adsorption/Soil: not applicable

# **Environmental distribution:**

Hexamethylene-1,6-diisocyanate Homopolymer

Not applicable

Page 16 of 19 Rev: 1 Issue Date 5/02/2019



ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

UROCURE CATALYST Product Number: FUT176

### Results of PBT and vPvB assessment:

Hexamethylene-1,6-diisocyanate Homopolymer This substance does not meet the criteria for classification as PBT or vPvB.

## Additional information on ecotoxicology:

Isocyanate reacts with water at the interface forming CO2 and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g, detergents) or by water soluble solvents. Previous experience shows that polyurea is inert and non-degradable.

#### 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable international, national and local laws, ordinances and statutes.

#### Waste treatment methods

After final product withdrawal. All residues must be removed from containers (drip-free, powder-free or paste-free). Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated. These containers can be returned for recycling to the appropriate centres set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

None disposal into waste water.

### 14. TRANSPORT INFORMATION

#### ADG7 - Australia

UN number:	1866
Proper shipping name:	RESIN SOLUTION
Australian Dangerous Goods class:	3
Australian Dangerous Goods packing group:	III
Hazard label:	3
Hazchem Code:	3Y

Page 17 of 19 Rev: 1 Issue Date 5/02/2019



Product Number: FUT176

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

# **UROCURE CATALYST**

# **IATA**

UN number:	1866
Proper shipping name:	RESIN SOLUTION
Class:	3
Packaging group:	III
Hazard label:	3
Packing instruction (cargo aircraft):	366
Packing instruction (passenger aircraft):	355

# **IMDG**

UN number:	1866
Proper shipping name:	RESIN SOLUTION
Class:	3
Packaging group:	III
IMDG-Labels:	3
Marine pollutant:	No
Special precautions for user:	Combustible. Keep dry. Keep separated from foodstuffs.

Page 18 of 19 Rev: 1 Issue Date 5/02/2019



ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

UROCURE CATALYST Product Number: FUT176

# 15. REGULATORY INFORMATION

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

# 16. ANY OTHER RELEVANT INFORMATION

Full text of hazardous (H) warnings referred to under sections 2 and 3 of the CLP classification (1272/2008/CE).

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptons or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with lasting effects.

The product is used mainly as a hardener in coating materials or adhesives. The handling of coating materials or adhesives containing reactive polyisocyanates and residual monomeric HDI requires appropriate protective measures referred to in this safety data sheet. These products may therefore be used only in industrial or trade applications. They are not suitable for use in homeworker (DIY) applications.

Date of preparation:	05/02/2019
Revision number:	1
Changes in this revision:	Update to GHS SDS standard

Page 19 of 19 Rev: 1 Issue Date 5/02/2019