

# SAFETY DATA SHEET

Issue Date August 2017

## Section 1: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product identifier**

**Product Name** Norski 421Epoxy Hardener

**Description** AMBER LIQUID

**Other means of identification**

**UN Number** 2735

**Recommended use of the chemical and restrictions on use**

**Recommended Use**

Construction of fibre reinforced equipment and fittings. Suitable for construction of recreational water craft. Corrosion resistant flooring and coatings.

**Details of the supplier of the safety data sheet**

**Manufacturer**

Norski Holdings Ltd  
10 Northpoint Street  
Plimmerton  
Wellington 5247  
New Zealand

For further information, please contact

**Contact Point**

Norski Holdings Ltd  
+64 (04) 233 6184

**E-mail address**

Enquiries@norski.co.nz

**Emergency telephone number**

**Emergency Telephone**

0800 500 341

## Section 2: HAZARD(S) IDENTIFICATION

**Regulatory information**

**EPA New Zealand HSNO approval code or group standard**

Surface Coatings and Colourants (Toxic [6.1], Corrosive) Group Standard 2006  
HSR 002677

**Dangerous Goods Class 8 PG III**

Label elements



HSNO Classification

- 6.1C (dermal) Acutely toxic
- 6.1C (oral) Acutely toxic
- 6.1C Inhalation
- 6.5B (contact) Contact sensitisers
- 6.8B Suspected human reproductive or developmental toxicants
- 6.9A Toxic to human target organs or systems
- 8.2C Corrosive to dermal tissue
- 8.3A Corrosive to ocular tissue
- 9.1B (algal) Very ecotoxic in the aquatic environment
- 9.1C (crustacean) Harmful in the aquatic environment
- 9.3B Ecotoxic to terrestrial vertebrates

GHS Classification

- |                                    |             |
|------------------------------------|-------------|
| Acute toxicity: Oral               | Category 3  |
| Acute toxicity: Skin               | Category 3  |
| Acute Toxicity Inhalation          | Category 3  |
| Skin sensitization                 | Category 1  |
| Reproductive toxicity              | Category 2  |
| Specific Target Organ Systemic     | Category 1  |
| Skin corrosion/irritation          | Category 1C |
| Serious eye damage/ eye irritation | Category 1  |
| Aquatic toxicity Chronic           | Category 2  |

Ecotoxic to terrestrial vertebrates

Hazard statements

- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H331 Toxic If Inhaled
- H361 Suspected of damaging fertility or the unborn child
- H373 Causes damage to organs through prolonged or repeated exposure
- H411 Toxic to aquatic life with long lasting effects.
- H432 Toxic to terrestrial vertebrates.

## Precautionary statements

### Prevention

- P202 Do not handle until all safety precautions have been read and understood.  
 P261 Avoid breathing vapours  
 P264 Wash hands thoroughly after handling  
 P270 Do not eat, drink or smoke when using this product  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P273 Avoid release to the environment  
 P280 Wear protective gloves, protective clothing, eye protection and face protection

### Response

- P30+ P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303 P361 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.  
 P353 Rinse skin with water/shower.  
 P304+ P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
 P305 + P351 P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 PP312 Call a POISON CENTER or doctor/physician if you feel unwell.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P361 Remove/Take off immediately all contaminated clothing.  
 P363 Wash contaminated clothing before reuse.  
 P391 Collect spillage.

### Storage

- P405 Store locked up

### Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	CAS no.	Weight %
Isophoronediamine	2855-13-2	50-60
Teta, reaction products with phenol /formaldehyde	32610-77-8	20-30
Triethylenetetramine	112-24-3	5-10
Phenol	108-95-2	5-10
Other ingredients determined not to be hazardous		To 100

## Section 4: FIRST AID MEASURES

Inhalation	Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
Skin	Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow Contac by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.
Eye contact	Flush eyes with plenty of water for 15 minutes while holding eyelids open. Get medical attention.
Ingestion	Do not induce vomiting. Rinse mouth with water. Give plenty of water to drink.
Treatment	Treat symptomatically

## Section 5: FIREFIGHTING MEASURES

Extinguishing Use water fog, foam, dry chemical or carbon dioxide.  
Media

Extinguishing Do not use direct water stream. May spread fire  
Media to  
Avoid

Hazardous Products In case of fire, the following hazardous smoke fumes may be produced: Carbon Oxides, Nitrous Combustion gases, ammonia.

Fire Fighting:- Clear fire area of all non-emergency personnel. Isolate fire and deny unnecessary entry. Cool fire

Procedures:- exposed containers with water. Irritating fumes are released in fire situations. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Do not allow material or run-off to enter waterways. Stay upwind, keep out of low areas.

Fire-fighting Equipment Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves).  
Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location

HAZCHEM 2X

## Section 6: ACCIDENTAL RELEASE MEASURES

General	Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure
Precautions Controls	and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures.
Personal Precautions	Use cautious judgement when cleaning up spills. Shut off leaks, if possible without personal risk.
Environ Mental Precautions	Dike and Contain. Contain run-off and dispose of properly. Remove contaminated soil to remove contaminated trace residues. Prevent from entering into drains, ditches or rivers.
Clean-up Methods (small)	Soak up with an absorbent material such as clay, sand, sawdust or Zorball. Place in non-leaking container. Seal tightly for proper disposal.
Clean-up Methods (large)	Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent material such as clay, sand, sawdust or Zorball. Place in non-leaking container. Seal tightly for proper disposal. Flush are with water to remove trace residue.

## Section 7: HANDLING AND STORAGE

Handling	Keep out of reach of children. Put on appropriate PPE (see section 8). Causes skin irritation and sensitivity. Avoid contact with skin, eyes and clothing. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Do not breathe vapour or mist. Clean up spilled material immediately, and wash clothes, equipment and work area after use.
Storage	Store in a cool, dry place with adequate ventilation. Keep containers closed when not in use.

## Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Workplace Exposure Standards	None established
Engineering Controls	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other controls

engineering controls to keep worker exposure to airborne contaminants as low as possible and/or below any recommended or statutory limits. Use explosion-proof ventilation equipment.

Personal     Respiratory - Use a properly fitted, air-purifying or air-fed respirator complying with an approved Protection standard if a risk assessment indicates this is necessary.

Skin - Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Eye - Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Hand - Recommended: polyvinyl alcohol (PVA), Butyl rubber, EVAL, Neoprene

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Colour	Amber
Odour	Sweet odour
pH	Not available
Vapour pressure	82 Pa (4.5 mm Hg)
Vapour density	0.0157 hPa at 20 °C
Boiling Point	Not available
Melting/Freezing Point	Not available
Solubility (water)	Soluble
Specific Gravity/Density	0.98g/cm <sup>3</sup> [25°C (77°F)]
Flash Point	110°C (closed cup)
Flammable Limits	LFL: Not available UFL: Not available
Auto-ignition	>300°C

## Section 10: STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid temperatures above 300°C. Potentially violent decomposition can occur, causing gas generation and pressure increases in closed systems.
Materials to avoid	Reactive or incompatible with the following materials: oxidizing materials. Slightly reactive or incompatible with the following materials: acids and alkalis.
Hazardous Decomposition Products	Decomposition products may include the following materials: carbon oxides, phenolics and water.

## Section 11: TOXICOLOGICAL INFORMATION

Potential Health effects	
Inhalation	No data is available on the product itself.
Ingestion	No data is available on the product itself.
Skin	Moderate skin irritation
Eye	Severe eye irritation.

### Acute Health Effects (Isophoronediamine)

Test	Species	Result	Exposure
LD50 Oral	Rat	1,030 mg/kg	-
LC50 Inhalation	Rat	> 5.01 mg/l	4 h
LD50 Dermal	Rat	> 2,000 mg/kg	-

### Systemic Impacts

This product is a HSNO 6.1C Toxic if inhaled, swallowed and on skin and HSNO 6.9A Toxic to Human Body Systems. It is also a HSNO 6.5B Skin Sensitiser.

### Carcinogenicity Mutagenicity

No Data is available.

## Section 12: ECOLOGICAL INFORMATION

(Isophoronediamine)

Ecotoxicity      Material is toxic to aquatic organisms on an acute basis

Species    Period    Result

LC50    Golden orfe    96 h    110 mg/l

EC50    water flea    48 h    23 mg/l

EC50    green algae    72 h    37 mg/l

EC10    Pseudomonas putida    18 h    1,120 mg/l

Degradability      Under OECD guidelines this material cannot be considered as readily degradable.

Bioaccumulation    Moderate

Log  $P_{ow}$  = 0.99 at 23 °C

HSNO Classification    9.1B    (algal)    Very ecotoxic in the aquatic environment

9.1C    (crustacean)    Harmful in the aquatic environment

9.3B    Ecotoxic to terrestrial vertebrates

## Section 13: DISPOSAL CONSIDERATIONS

Disposal

*DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.* All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations.

*FOR UNUSED AND UNCONTAMINATED PRODUCT,* the preferred options include sending to a licensed, permitted recycler, reclaimer, incinerator or other destruction device.

## Section 14: TRANSPORT INFORMATION

Road, Rail, Sea and Air Transport

UN Number      2735

Proper Shipping

Name      Polyamines, liquid, corrosive, n.o.s. (mixture contains isophoronediamine)

DG Class      8

Packing Group    III

HAZCHEM code    2X

IMO/IMDG class    8

ICAO/IATA class    8

EMS code      F – A, S – B

Marine pollutant    Yes

## Section 15: REGULATORY INFORMATION

Surface Coatings and Colourants (Toxic [6.1], Corrosive) Group Standard 2006  
HSR 002677

This Group Standard is appropriate due to the 6.1C Classifications. Currently any product requires a HSNO Approved Handler at any quantity until after 1 December 2017 when the Person in Charge of a Business Unit will be responsible for Training.



<b>Section 16: ANY OTHER RELEVANT INFORMATION</b>
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None

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**End of Safety Data Sheet**