SAFETY DATA SHEET

Issue Date 14-Aug-2017 **Revision Date** 14-Aug-2017 **Version** 1

Section 1: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier

Product Name Polyurethane Varnish

Description Liquid

Other means of identification

UN Number 1866

Recommended use of the chemical and restrictions on use

Recommended Use Intermediate Resin

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 +64 (04) 233 6184
E-mail address Enquiries@norski.co.nz

Emergency telephone number

Emergency Telephone +64 0800 500 341

Section 2: HAZARD(S) IDENTIFICATION

Regulatory information Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand

EPA New Zealand HSNO approval code or group standard HSR002662
Group Standard: Surface coatings and colourants (Flammable) Group Standard 2006.

Dangerous Goods Class 3 PG III

GHS Classification

Flammable liquids	Category 3 (HSNO - 3.1C)
Aspiration Hazard	Category 1 (HSNO -6.1E)
Skin Irritant	Category 2 (HSNO -6.3A
Serious Eye Irritant	Category 2A (HSNO 6.4A
Specific target organ toxicity (repeated exposure)	Category 1 (HSNO - 6.9A)
Specific target organ toxicity (single exposure)	Category 3 (HSNO - 6.9B)
Chronic aquatic toxicity	Category 2 (HSNO - 9.1B)

Label elements

Signal word **Danger**

Hazard Statements

H226 - Flammable liquid and vapour
H304 May be fatal if swallowed and enters airways
H316 -Causes mild skin irritation
H319 -Causes serious eye irritation
H335- May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H372 - Causes damage to organs through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements – Prevention

Obtain special instructions before use
Do not use until all safety precautions read and understood.
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapours/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid release to the environment
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Use explosion-proof electrical/ ventilating/ lighting/ equipment
Wear protective gloves/protective clothing/eye protection/face protection
Keep cool

Precautionary Statements - Response
Get medical advice/attention if you feel unwell
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISONS INFORMATION CENTRE or doctor if you feel unwell
IF SWALLOWED CALL NATIONAL POISONS CENTRE OR DOCTOR IMMEDIATELY
In case of fire: Use CO_2, dry chemical, or foam for extinction
Collect spillage
Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other hazards

No hazard identified

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Name	CAS No	Weight-%
Naphtha, petroleum, hydrodesulfurized heavy	64742-82-1	30-<60
Mineral Turpentine	N/A	5%

Remainder non hazardous

Section 4: FIRST AID MEASURES

For advice, contact the National Poisons Centre (Phone New Zealand: 0800 764 766) or a doctor.

Swallowed

If swallowed, do NOT induce vomiting. Rinse mouth. Get immediate medical advice. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Get immediate medical assistance.

Skin Contact
If skin contact occurs, remove contaminated clothing and wash skin with soap and water. If skin irritation occurs, get medical advice. Launder contaminated clothing before re-use.

Eye Contact
Hold eyelids apart and flush the eye continuously with running water for 15 minutes. Remove contact lenses after 5 minutes if present, and easy to do. Continue flushing. Get immediate medical attention if irritation persists.

Inhalation
Move the person to fresh air immediately. Keep warm and at rest until recovered. If respiratory irritation, dizziness, nausea or unconsciousness occurs, get immediate medical assistance.
Begin artificial respiration if breathing has stopped and get immediate medical assistance.

First Aid facilities
Provide eye baths and safety showers close to areas where splashing may occur.

Note to Doctor/Physician
If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Section 5: FIREFIGHTING MEASURES

General Advice

Flammable liquid and vapour. Shut off product that may ‘fuel’ a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing fire fighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable Extinguishing Media

Carbon dioxide (CO2). Dry chemical. Alcohol-resistant foam. Water spray.

Unsuitable extinguishing media
Do not use water jetstream

Specific hazards arising from the chemical

Flammable. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Hazards from combustion products

Smoke, fume, carbon dioxide and carbon monoxide and incomplete combustion products.

Special protective actions for fire-fighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Hazchem code •3YE.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions
Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take action to prevent static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment
Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dam far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Use flame proof pumping system or absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up
Take action to prevent static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Precautions to prevent secondary hazards

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections
See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharges. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

General Hygiene Considerations
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and after work. Wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e. pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store separately.

Incompatible materials

None known based on information supplied.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Exposure Limits

Exposure Standards Mineral Turpentine
The time-weighted average concentration (TWA) is the highest allowable exposure concentration in an eight-hour day for a five-day working week.
The short-term exposure limit (STEL) is the maximum allowable exposure concentration at any time.
WorkSafe has set workplace limits (WES) for components in this product.
Cumene SKIN TWA: 125 mg/m3 |925 ppm); STEL: 375 mg/m3 (75 ppm)
Naphthalene TWA: 52 mg/m3 (10 ppm); STEL: 79 mg/m3 (15 ppm)
Ethylbenzene TWA: 434 mg/m^3 (100 ppm); STEL: 543 mg/m^3 (125 ppm)

The Toxic Exposure Limit in Air – TEL (Air): Not available
The Toxic Exposure Limit for Skin – TEL (Skin): Not available
The Toxic Exposure Limit for Drinking Water – TEL (Drinking Water): Not available

Biological Exposure Limit Values
None established

Biological occupational exposure limits
Not applicable

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	Tight sealing safety goggles
Skin and body protection	Antistatic footwear. Wear fire resistant or flame retardant clothing which is chemical resistant with long sleeves and long trousers or coveralls and enclosed safety foot wear or boots. Gloves can be made of plastic rubber including nitrile.
Respiratory protection	Where respiratory protection is required, use a respirator selected and in accordance with AS/NZS 1715 and AS/NZS 1716.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained. Prevent product from entering drains.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Appearance	clear
Colour	amber
Odour	Slight
Odour threshold	No information available

Property	**Values**	**Remarks •Method**
pH		Not applicable
Melting point / freezing point		No information available
Boiling point/boiling range	147 - 199 °C	
Flash point	36 °C	Tag Closed Cup
Evaporation rate	0.16	
Flammability (solid, gas)		No information available
Flammability Limit in Air		
Upper flammability limit:	7.0 %	
Lower flammability limit:	0.6 %	
Vapour pressure	8	hPa, 40°C
Vapour density	4.5	
Relative density	0.89	
Water solubility		insoluble
Solubility(ies)	-	No information available
Partition coefficient		No information available
Auto-ignition temperature		No information available
Decomposition temperature		No information available
Kinematic viscosity	337 mm2/s	
Dynamic viscosity	> 300 mPa s	No information available
Explosive properties	No information available	
Oxidising properties	No information available	

Other Information

VOC Content (%)	0.1313
Density	No information available

* This information may be derived from the components in the preparation.

Section 10: STABILITY AND REACTIVITY

Chemical stability
Stable at room temperature and pressure.
Conditions to avoid
Heat, sparks, open flames and other ignition sources; incompatible materials (natural rubber, butyl rubber, EPDM, polystyrene.
Hazardous decomposition products
No decomposition products except on burning. See "Fire Fighting Measures".
Hazardous reactions
Oxidizing agents, mineral acids, halogenated organic compounds.
Hazardous Polymerisation
Will not occur.

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion
Minimally toxic. Small amounts of liquid aspirated into the lungs during ingestion, or from vomiting, may cause chemical pneumonitis, or pulmonary oedema.
Eye Contact
This product is seriously irritating to the eyes with permanent damage resulting.
Skin Contact
This product is mildly irritating to the skin with prolonged exposure. It may result in dryness and cracking.
Inhalation
May be irritating to eyes, nose, throat and lungs. May cause central nervous system depression.
Chronic Effects
Short term single exposure may cause drowsiness and dizziness.
Other Health Effects Information
None
Toxicological Information Mineral Turpentine
Naphthalene:
Oral LD_{50} 490 mg/kg (rat)
Dermal LD_{50} 1120 mg/kg (rat)
Ethylbenzene:
Oral LD_{50} 3280 mg/kg (rat)
Inhalation LC_{50} (4 hr) 18 mg/L (rat)

See section 16 for terms and abbreviations

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
Aquatic Toxicity:
Product classified as toxic in the aquatic environment with long-lasting effects.

Persistence/ Biodegradability:
Expected to be biodegradable. Not expected to significnatly bioaccumulate. Oxidises rapidly by photo-chemical reactions in air.
Mobility:

This product is highly volatile and partition rapidly in air. Not expected to partition to sediment and wastewater solids.

Exposure limits:
The Environmental Exposure Limit in Air – EEL (Air): Not available.
The Environmental Exposure Limit for Water – EEL (Water): Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain product residue that may be harmful. Ensure that empty packaging is managed in accordance with Dangerous Goods and HSNO regulations.

Special Precautions

This product is not suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is ashless and can be incinerated in a regulated facility. In the absence of a designated industrial incinerator, this product should be treated and disposed through chemical waste treatment, or considered for use in solvent recycling.

Section 14 : TRANSPORT INFORMATION

Road transport

UN Number	UN1866
Proper shipping name	RESIN SOLUTION
Description	UN1866, RESIN SOLUTION, 3, III
Hazard Class	3
Packing Group	III
Environmental hazard	Yes
Special Precautions for users	223, *
Hazchem code	•3YE.
IERG	14

IMDG

UN/ID no	UN1866
Proper shipping name	RESIN SOLUTION
Description	UN1866, RESIN SOLUTION (Naphtha, petroleum, hydrodesulfurized heavy and Mineral Turpentine), 3, III, (36°C) C.C.), Marine pollutant
Hazard Class	3
Packing Group	III
EmS-No	F-E, S-E
Special Precautions for users	223, 955
Marine pollutant	This material meets the definition of a marine pollutant

Transport in Bulk According to Annex II of MARPOL and the IBC CODE
No information available

IATA

UN/ID no	UN1866

Proper shipping name	Resin solution
Description	UN1866, Resin solution, 3, III
Hazard Class	3
Packing Group	III
ERG Code	3L

Section 15: REGULATORY INFORMATION

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

New Zealand
Regulatory information

EPA New Zealand HSNO approval code or group standard

HSR002662 Group Standard: Surface Coatings and Colourants (Flammable) Group Standard 2006.

See the Group Standard for trigger quantities for HSNO Location Test Certificates, HSNO Approved Handler Certificates, HSNO Signage, Fire Extinguishers, Signage, Emergency Response, Secondary Containment and Hazardous Atmosphere Zones.

Section 16: ANY OTHER RELEVANT INFORMATION

Revision Date	14-Aug-2017
Revision Note	New Format
Legend Section	

8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

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End of Safety Data Sheet