



SAFETY DATA SHEET

Issue Date August 2017

Section 1: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier

Product Name Kleer Kast

Description Liquid/Resin

Other means of identification

UN Number 1866

Recommended use of the chemical and restrictions on use

Recommended for Industrial and/or Professional use only

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

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 HSR002495

Group Standard: Additives, process chemicals and raw materials (Flammable) Group Standard 2006.

Dangerous Goods Class

Hazard Class 3 Packing Group III

GHS Classification

Flammable liquids	Category 3 (HSNO - 3.1C)
Reproductive toxicity	Category 2 (HSNO - 6.8B)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 (HSNO - 6.1D)
Specific target organ toxicity (repeated exposure)	Category 1 (HSNO - 6.9A)
Specific target organ toxicity (single exposure)	Category 3 (HSNO - 6.1E)
Skin corrosion/irritation	Category 2 (HSNO - 6.3A)
Serious eye damage/eye irritation	Category 2 (HSNO - 6.4A)
Aspiration toxicity	Category 1 (HSNO - 6.1E)
Acute aquatic toxicity	Category 2 (HSNO - 9.1D)
Chronic aquatic toxicity	Category 3 (HSNO - 9.1C)

Label elements



Signal word

Danger

Hazard statements

H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H361 - Suspected of damaging fertility or the unborn child
H372 - Causes damage to organs through prolonged or repeated exposure
H401 - Toxic to aquatic life
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Do not breathe dust/fume/gas/mist/vapours/spray
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
Keep cool

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
Specific treatment (see supplemental first aid instructions on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing
If eye irritation persists: Get medical advice/attention

If skin irritation occurs: Get medical advice/attention
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before re-use
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IF SWALLOWED: Immediately call a POISONS INFORMATION CENTRE or doctor Do NOT induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

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

<u>Chemical Name</u>	<u>CAS No</u>	<u>Weight-%</u>
Styrene	100-42-5	30-<60
Non-hazardous ingredients		Balance

Section 4: FIRST AID MEASURES

Description of first aid measures General advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Emergency telephone number

Poisons Information Centre, New Zealand: 0800 764 766

Inhalation

Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary oedema may occur. Get medical attention immediately if symptoms occur.

Skin contact

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Eye contact



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. 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. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Ensure adequate ventilation. Take off contaminated clothing and wash it before reuse.

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. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. 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. Hazardous polymerisation may take place during a fire due to heat. Closed containers could violently rupture. Do not store at temperatures above 27C.



Incompatible materials
Strong acids. Strong bases. Strong oxidising agents

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical Name	New Zealand
Styrene 100-42-5	TWA: 50 ppm TWA: 213 mg/m ³ STEL: 100 ppm STEL: 426 mg/m ³ Skin*

Biological occupational exposure limits

Chemical Name	New Zealand
Styrene 100-42-5	1 g/L urine end of shift Mandelic acid

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. Face protection shield.

Skin and body protection Antistatic footwear. Wear fire resistant or flame retardant clothing. Gloves made of plastic or rubber. Suitable protective clothing. Apron.

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.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Appearance	clear Hazy
Colour	clear
Odour	Characteristic Styrene
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks •Method</u>
pH		No information available
Melting point / freezing point		No information available
Boiling point/boiling range	145 °C	(based on components)
Flash point	31 °C	Tag Closed Cup
Evaporation rate	0.49	
Flammability (solid, gas)		No information available
Flammability Limit in Air		



EPOXIES • RESINS • GLUES • FILLERS

Upper flammability limit:	6.1 %	
Lower flammability limit:	1.1 %	
Vapour pressure	6	hPa, 20°C Derived from solvent
Vapour density	3.6	Derived from solvent
Relative density	0.95	
Water solubility		insoluble
Solubility(ies)	-	No information available
Partition coefficient		No information available
Auto-ignition temperature	490 °C	Derived from solvent
Decomposition temperature		No information available
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Explosive properties	No information available	
Oxidising properties	No information available	

Other Information

VOC Content (%)	No information available
Density	No information available

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

Section 10: STABILITY AND REACTIVITY

Reactivity

No Data Available.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	May be ignited by heat, sparks or flames.

Possibility of Hazardous Reactions

Possibility of Hazardous Reactions

HAZARDOUS POLYMERISATION MAY OCCUR UPON DEPLETION OF INHIBITOR.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong acids. Strong bases. Strong oxidising agents.

Hazardous Decomposition Products

Decomposition products can include and are not limited to: Styrene.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Aspiration into lungs can produce severe lung damage. May cause pulmonary oedema. Pulmonary oedema can be fatal.

Eye contact

Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.

Skin contact

Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). Repeated exposure may cause skin dryness or cracking.

Ingestion

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary oedema and pneumonitis.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Converted acute toxicity point estimates may have been used when only acute toxicity hazard classification is available.

ATEmix (inhalation-vapour) 30.40
 ATEmix (inhalation-dust/mist) 3.90
 0% of the mixture consists of ingredient(s) of unknown toxicity
 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Styrene	= 5000 mg/kg (Rat)	-	= 11.8 mg/L (Rat) 4 h

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

Classification based on individual ingredients of the mixture. Irritating to skin.

Serious eye damage/eye irritation

Classification based on individual ingredients of the mixture. Irritating to eyes.

Sensitisation

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

Contains a known or suspected reproductive toxin.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Unknown Aquatic Toxicity

0.05053% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Fish
Styrene	19.03 - 33.53 mg/L LC50 96 h <i>Lepomis macrochirus</i> static 6.75 - 14.5 mg/L LC50 96 h <i>Pimephales promelas</i> static 3.24 - 4.99 mg/L LC50 96 h <i>Pimephales promelas</i> flow-through 58.75 - 95.32 mg/L LC50 96 h <i>Poecilia reticulata</i> static

Chemical Name	Crustacea
Styrene	3.3 - 7.4 mg/L EC50 48 h <i>Daphnia magna</i>

Chemical Name	Algae/aquatic plants
Styrene	0.46 - 4.3 mg/L EC50 72 h <i>Pseudokirchneriella subcapitata</i> static 0.15 - 3.2 mg/L EC50 96 h <i>Pseudokirchneriella subcapitata</i> static 1.4 mg/L EC50 72 h <i>Pseudokirchneriella subcapitata</i> 0.72 mg/L EC50 96 h <i>Pseudokirchneriella subcapitata</i>

Persistence and degradability

No information available.

Bioaccumulative potential

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Chemical Name	Partition coefficient
Styrene	2.95

Mobility

Mobility in soil

No information available.

Mobility

No information available.

Other adverse effects

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Endocrine Disruptor Information .

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Endocrine disrupting potential
Styrene	Group I Chemical	High Exposure Concern	-

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products

Refer to all federal, state and local regulations prior to disposal of container and unused contents by re-use, recycle or disposal.

Contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and



regulations. Observe all label precautions until container is cleaned, reconditioned or destroyed. Refer to all federal, state and local regulations prior to disposal of container and unused contents by re-use, recycle or disposal.

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
Special Precautions for users	223, *
Hazchem code	•3YE.
IERG	14

IMDG

UN/ID no	UN1866
Proper shipping name	RESIN SOLUTION
Description	UN1866, RESIN SOLUTION, 3, III, (31°C C.C.)
Hazard Class	3
Packing Group	III
EmS-No	F-E, S-E
Special Precautions for users	223, 955

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

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand. See section 8 for national exposure control parameters

EPA New Zealand HSNO approval code or group standard HSR002495
Group Standard: Additives, process chemicals and raw materials (Flammable) Group Standard 2006.

International Inventories

AICS - Australian Inventory of Chemical Substances	Listed or exempt
DSL - Canadian Domestic Substances List	Listed or exempt
IECSC - China Inventory of Existing Chemical Substances	Listed or exempt
EINECS/ELINCS - European Inventory of Existing Chemical Substances /European List of Notified Chemical Substances	Listed or exempt



ENCS - Japan Existing and New Chemical Substances	Listed or exempt
KECL - Korean Existing and Evaluated Chemical Substances	Listed or Exempt
NZIoC - New Zealand Inventory of Chemicals	Listed or Exempt
PICCS Philippines Inventory of Chemicals and Chemical Substances	Listed or Exempt
CICR - Turkey Chemical Inventory Control Regulation	No Information Available
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	No Information Available
NCSR - Taiwan National Chemical Substance Registry	No Information Available.

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements Not applicable

Section 16: ANY OTHER RELEVANT INFORMATION

Revision Date 1 October-2017

Revision Note New Format

Key or legend to abbreviations and acronyms used in the safety data sheet

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