Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **KORANTIN PM**

Recommended Use of the Chemical and Restrictions on Use Raw material for the chemical-technical industry.

Supplier: Ixom Operations Pty Ltd
ABN: 51 600 546 512
Street Address: Level 8, 1 Nicholson Street
East Melbourne Victoria 3002
Australia

Telephone Number: +61 3 9906 3000
Emergency Telephone: **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:
Flammable liquids - Category 4
Acute Oral Toxicity - Category 4
Eye Damage - Category 1
Acute Inhalation Toxicity - Category 2
Specific target organ toxicity (single exposure) - Category 3
Specific target organ toxicity (repeated exposure) - Category 2

SIGNAL WORD: DANGER

Hazard Statement(s):
H227 Combustible liquid.
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

Prevention:
P210 Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P260 Do not breathe mist, vapours, spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P284 Wear respiratory protection.

Response:
P370+P378 In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P320 Specific treatment is urgent (see First Aid Measures on this Safety Data Sheet).
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P314 Get medical advice/attention if you feel unwell.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Ethyleneglycol, monopropargylether	3973-18-0	97-99%	H227 H302 H318 H330 H335
Propargyl alcohol	107-19-7	1-<3%	H226 H331 H311 H301 H314 H411

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:
Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Immediately administer a corticosteroid from a controlled/metered dose inhaler. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact:
If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. A component of this material can be absorbed through the skin with resultant toxic effects. Seek immediate medical assistance.

Eye Contact:
Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre.

Ingestion:
Immediately rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:
Treat symptomatically. No known specific antidote. Can cause corneal burns.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Alcohol-resistant foam. Dry agent (dry chemical powder).

Hazchem or Emergency Action Code: 2X

Specific hazards arising from the chemical:
Combustible liquid. May form flammable vapour mixtures with air. On burning will emit toxic fumes, including those of oxides of carbon .

Special protective equipment and precautions for fire-fighters:
Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
Shut off all possible sources of ignition. Clear area of all unprotected personnel. Do not allow container or product to get into drains, sewers, streams or ponds. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. For large amounts: Dike spillage. Cover with alcohol-resistant foam. Pump off product.

7. HANDLING AND STORAGE

Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

Precautions for safe handling:
Avoid skin and eye contact and breathing in vapour. Take precautionary measures against static discharges. When using do not eat, drink or smoke. The product may be handled only by appropriately trained personnel.

Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Suitable containers: stainless steel. Suitable containers: polyethylene. Suitable containers: carbon steel. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Propargyl alcohol (Prop-2-yn-1-ol): 8hr TWA = 2.3 mg/m^3 (1 ppm), Sk

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

`Sk' (skin) Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:
Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Dark Brown
Odour:	Pungent
Odour Threshold:	Not determined
Solubility:	Miscible with water. Miscible with polar solvents .
Specific Gravity:	ca. 1.03 @20°C
Relative Vapour Density (air=1):	Not determined
Vapour Pressure (20 °C):	ca. 1.98 mbar
Flash Point (°C):	ca. 78
Flammability Limits (%):	ca. 1.4%(V) - 44.9%(V)
Autoignition Temperature (°C):	>200
Boiling Point/Range (°C):	150 - 200
pH:	7-10 (100 g/L, 23°C)
Viscosity:	7.68 mm2/s @20°C (Kinematic)
Surface Tension:	ca. 59.2 mN/m
Freezing Point/Range (°C):	ca. -50

10. STABILITY AND REACTIVITY

Reactivity:	Reacts with strong acids. Reacts with alkalis. Reacts with strong bases. Reacts with heavy-metal salts. Reacts with oxidising agents.
Chemical stability:	No information available.
Possibility of hazardous reactions:	May react with strong acids , strong bases , alkalis , heavy-metal salts , oxidising agents .
Conditions to avoid:	Avoid exposure to heat, sources of ignition, and open flame. Avoid exposure to air. Avoid exposure to light.
Incompatible materials:	Incompatible with strong acids , strong bases , alkalis , oxidising agents , heavy-metal salts .
Hazardous decomposition products:	Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	Swallowing may result in nausea, vomiting, diarrhoea, gastrointestinal irritation.
Eye contact:	A severe eye irritant. Contamination of eyes can result in permanent injury.
Skin contact:	Contact with skin may result in irritation.
Inhalation:	Breathing in vapour will produce respiratory irritation.

Acute toxicity: No LD50 data available for the product. However, based on similar product(s):
Oral LD50 (rat): >300-2000 mg/kg
Dermal LD50 (rat): >2000 mg/kg

Inhalation LC50 (rat): >0.5-2 mg/L/8h (similar to OECD guideline 403)

Skin corrosion/irritation:	Non-irritant (rabbit). (for similar products)
Serious eye damage/irritation:	Severe irritant (rabbit). (for similar products)
Respiratory or skin sensitisation:	Not a skin sensitiser. (for similar products)

Chronic effects:

Mutagenicity:	No evidence of mutagenic effects. (for similar products)
Carcinogenicity:	No information available.
Reproductive toxicity:	No information available.
Specific Target Organ Toxicity (STOT) - single exposure:	May cause respiratory irritation.
Specific Target Organ Toxicity (STOT) - repeated exposure:	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard:	No aspiration hazard expected.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Avoid contaminating waterways.
Persistence/degradability:	The material is readily biodegradable. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.
Bioaccumulative potential:	Not expected to bioaccumulate.
Mobility in soil:	Adsorption to solid soil phase is possible.
Log Octanol/Water Partition Coefficient:	ca. 0.7 (calculated)
96hr LC50 (fish):	>100 mg/L (Leuciscus idus) (for products with similar chemical character)

13. DISPOSAL CONSIDERATIONS

Disposal methods:
Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN No:	2810
Transport Hazard Class:	6.1 Toxic
Packing Group:	III
Proper Shipping Name or Technical Name:	TOXIC LIQUID, ORGANIC, N.O.S. (ETHYLENEGLYCOL, MONOPROPARGYLETHER)

Hazchem or Emergency Action Code: 2X

Marine Transport
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No:	2810
Transport Hazard Class:	6.1 Toxic
Packing Group:	III
Proper Shipping Name or Technical Name:	TOXIC LIQUID, ORGANIC, N.O.S. (ETHYLENEGLYCOL, MONOPROPARGYLETHER)
IMDG EMS Fire:	F-A
IMDG EMS Spill:	S-A

Air Transport
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No:	2810
Transport Hazard Class:	6.1 Toxic
Packing Group:	III
Proper Shipping Name or Technical Name:	TOXIC LIQUID, ORGANIC, N.O.S. (ETHYLENEGLYCOL, MONOPROPARGYLETHER)

15. REGULATORY INFORMATION

Classification:
This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:
Flammable liquids - Category 4
Acute Oral Toxicity - Category 4
Eye Damage - Category 1
Acute Inhalation Toxicity - Category 2
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Hazard Statement(s):
H227 Combustible liquid.
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Poisons Schedule (SUSMP): None allocated.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Supplier Safety Data Sheet; 12/ 2018.
Korantin is a registered trademark.

This safety data sheet has been prepared by Ixom Operations Pty Ltd (Toxicology & SDS Services).

Reason(s) for Issue:
Revised Primary SDS
Change in Hazardous Chemical Classification
Change in Fire Management Requirements
Change in Physical Properties
Update in Toxicological Information
Update in Ecological Information

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.