



SAFETY DATA SHEET



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	KEROSENE Q3301
QS Code	KERO5; KERO20; KERO200
Company Name	QUICK SMART PRODUCTS
Manufacturer	ADVANCE CHEMICALS
Address	4 – 8 Malton Court Altona Vic 3018
Telephone	(03) 9398 4444 (BH) Poisons Information Centre 131126 (AH) 0425 800 022 (AH)
Recommended Use	Solvent

2. HAZARDS IDENTIFICATION

Statement of Hazardous Nature Classified as **Hazardous** according to the criteria of the Australian Safety and Compensation Council ASCC (formerly NOHSC) Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008] 3rd Edition.

Kerosene is classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

GHS Classification

Hazard Categories

- Flammable Liquids: Category 3
- Aspiration Hazard: Category 1
- Skin Corrosion/Irritation: Category 2
- Specific Target Organ Toxicity - Single Exposure: Category 3 (narcotic effects)
- Aquatic Toxicity (Chronic): Category 2
- Aquatic Toxicity (Acute): Category 2

GHS Label Elements

Signal Word DANGER

Symbol(s)



Hazard Statements

H226:	Flammable liquid and vapour
H304:	May be fatal if swallowed and enters airways
H315:	Causes skin irritation
H336:	May cause drowsiness or dizziness
H411:	Toxic to aquatic life with long lasting effects
H401:	Toxic to aquatic life



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Precautionary Statements

Prevention	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/ventilation/lighting equipment
	P242:	Use only non-sparking tools
	P243:	Take precautionary measures against static discharge
	P261:	Avoid breathing mist, vapours, spray
	P271:	Use only outdoors or in a well-ventilated area
	P280:	Wear protective gloves/eye protection/face protection
	P281:	Use personal protection equipment as required.
Response	P301+P310:	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician
	P303+P361+P353:	If ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
	P304+P340:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
	P312:	Call a POISON CENTER or doctor/physician if you feel unwell
	P331	Do NOT induce vomiting
	P332+P313:	If skin irritation occurs: Get medical advice/attention
	P362:	Take off contaminated clothing and wash before reuse
P370+P378:	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction	
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 to appropriate waste site of reclaimer in accordance with local and national regulations

Other Hazards which do not result in classification

Slightly irritating to respiratory system. Liquid evaporates quickly and can ignite leading to a flash fire, or an explosion in a confined space. Vapour in the headspace of tanks and containers may ignite and explode at temperatures exceeding auto-ignition temperature, where vapour concentrations are within the flammability range. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Kerosene may ignite on surfaces at temperatures above auto-ignition temperature.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Description

Complex mixture of hydrocarbons consisting of paraffin's, cycloparaffins, aromatic and olefinic hydrocarbons with carbon numbers predominantly in the C9 to C16 range. May also contain several additives at <0.1% v/v each. May contain cetane improver (Ethyl Hexyl Nitrate) at <0.2% v/v.

Hazardous Components

Chemical Identity	CAS No.	Concentration
Kerosene	8008-20-6	>99%

Additional Information

Contains naphthalene, CAS # 91-20-3. Dyes and markers can be used to indicate tax status and prevent fraud.



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4. FIRST AID MEASURES

Information

Check the vital functions. Unconscious: Maintain adequate airway and respiration. Respiratory arrest: Artificial respiration or oxygen. Cardiac arrest: Perform resuscitation. Victim conscious with laboured breathing: Half seated. Victim in shock: On his back with legs slightly raised. Vomiting: Prevent asphyxia pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: Doctor/hospital. Never give alcohol to drink.

Ingestion

If swallowed, DO NOT induce vomiting. Transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Give a glass of water. Seek immediate medical assistance.

Eyes

Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment.

Skin

Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest facility for additional treatment.

Inhaled

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. Seek medical advice if effects persist.

First Aid Facilities

Eye wash fountains and safety showers should be available for emergency use.

Advice to Doctor

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media

Do not use direct water jets on the burning product as they could cause a steam explosion and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

Special Protective Precautions and Equipment for Fire Fighters

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Oxides of sulphur. Unidentified organic and inorganic compounds. Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. Flammable vapours may be present even at temperatures below the flash point. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

Other Advice

Flammable liquid. May form flammable vapour mixtures with air. Vapour may travel a considerable distance to source of ignition and flash back. Burning liquid may float on water. Keep adjacent containers cool by spraying with water. Do not allow run-off from fire fighting to enter drains or water courses.



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6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of the Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations. Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Take precautionary measures against static discharges.

Emergency Procedures/ Environmental Precautions

Take measures to minimise the effects on groundwater.
Contain residual material at affected sites to prevent material from entering drains (sewers), ditches, and waterways. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Personal Precautions/ Protective Equipment/ Methods and Materials for Containment and Cleaning Up

Do not breathe fumes, vapour. Do not operate electrical equipment. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area and evacuate all personnel. Attempt to disperse the gas or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas meter.

Methods and Materials for Containment and/or Cleaning Up

Take precautionary measures against static discharges.
For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

7. HANDLING AND STORAGE

General Precautions

Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Air-dry contaminated clothing in a well-ventilated area before laundering. Prevent spillages. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Never siphon by mouth. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse.
Maintenance and Fuelling Activities - Avoid inhalation of vapours and contact with skin.

Precautions for Safe Handling

Avoid inhaling vapour and/or mists. Avoid prolonged or repeated contact with skin. When using do not eat or drink. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Earth all equipment. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. The vapour is heavier than air, spreads along the ground and distant ignition is possible.



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Conditions for Safe Storage, Including any Incompatibilities

Drum and small container storage: Drums should be stacked to a maximum of 3 high. Use properly labelled and closeable containers. Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Vapours from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a suitable vapour treatment system. The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Keep container tightly closed and in a cool, well ventilated place. Keep in a cool place. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Refer to section 15 for any additional specific legislation covering the packaging and storage of this product. Keep in a bonded area with a sealed (low permeability) floor, to provide containment against spillage. Prevent ingress of water.

Recommended Materials

For containers, or container linings use mild steel, stainless steel. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE) and Viton (FKM), which have been specifically tested for compatibility with this product. For container linings, use amine-adduct cured epoxy paint. For seals and gaskets use: graphite, PTFE, Viton A, Viton B.

Unsuitable Materials

Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene. However, some may be suitable for glove materials.

Container Advice

Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operation on near containers.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Occupational Exposure Limits

Material	Source	Type	ppm	mg/m ³	Notation
Naphthalene	ACGIH	TWA	10		
	ACGIH	STEL	15		
	AFGIH	SKIN_DES			Can be absorbed through skin
	SG OEL	TWA	10	52	
	SG OEL	TWA	15	79	
Kerosene	ACGIH	TWA		200	
	ACIGIH	SKIN_DES			Can be absorbed through skin

Biological Exposure Index (BEI)

No biological limit allocated.

Engineering Controls

Ventilation

Provide sufficient ventilation to keep airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 2430.3.1:1997 : Classification of hazardous areas - Examples of area classification - General, for further information concerning ventilation requirements.



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Appropriate Engineering Controls

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Use sealed systems as far as possible. Firewater monitors and deluge systems are recommended. Eye washes and showers for emergency use.

Personal Protection

Hand Protection

Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection: Longer term protection: Viton. Incidental contact/Splash protection: Nitrile rubber. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Skin Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Eye Protection

Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours [Type A boiling point > 65°C (149°F)] meeting EN14387. Where respiratory protective equipment is required, use a full-face mask. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Body Protection

Chemical resistant gloves/gauntlets, boots, and apron. Where risk of splashing or in spillage clean up, use chemical resistant one-piece overall with integral hood. Wear antistatic and flame retardant clothing.

Smoking & Other Dusts

Smoking must be prohibited in all areas where this product is used - see safety information on flammability.

Thermal Hazards

Not applicable.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended exposure measurement methods are given below or contact the supplier.

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapor.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Colourless liquid
Odour	Hydrocarbon
Odour Threshold	Data not available
pH	Data not available
Initial Boiling Point and Boiling Range	>160°C
Melting/Freezing Point	<=12.44°C
Flash Point	37.8°C (Tag closed cup)
Lower/Upper Flammability or Explosion Limits	0.7 - 5.0% (V)
Auto Ignition Temp	229°C
Vapour Pressure	0.013 hPA at 38°C
Relative Density	0.78-0.82g/cm ³
Water Solubility	Negligible
Solubility in Other Solvents	Data not available
n-octanol/Water Partition Coefficient (log Pow)	Data not available
Dynamic Viscosity	Data not available
Kinematic Viscosity	Data not available
Vapour Density (air=1)	4.5
Evaporation Rate (nBuAc=1)	Data not available
Flammability	Flammable liquid

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Incompatible Materials	May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Conditions to Avoid	Heat, sparks, flame and build-up of static electricity.
Hazardous Decomposition Products	Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide and carbon dioxide.
Hazardous Reactions	Hazardous polymerization will not occur under normal conditions.



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11. TOXICOLOGICAL INFORMATION

Basis for Assessment	Information given is based on product data, knowledge of the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
Likely Routes of Exposure	Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.
Acute Oral Toxicity	Low toxicity: LD50 >5000 mg/kg, Rat
Acute Dermal Toxicity	Low toxicity: LD50 >2000 mg/kg, Rabbit
Acute Inhalation Toxicity	Harmful if inhaled. LC50 >1.0 - <=5.0 mg/l, 4h, Rat. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin Corrosion / Irritation	Irritating to skin.
Serious Eye Damage/ Irritation	Expected to be slightly irritating.
Respiratory or Skin/ Sensitation	Inhalation of vapours or mists may cause irritation to the respiratory system.
Respiratory Irritation	Not expected to be a sensitiser.
Aspiration Hazard	Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Gem Cell Mutagenicity	Positive in in-vivo mutagenicity assays.
Carcinogenicity	Limited evidence of carcinogenic effect. Repeated skin contact has resulted in irritation and skin cancer in animals.

Material	Carcinogenicity Classification
Naphthalene	ACGIH Group A4: Not classified as a human carcinogen
Naphthalene	NTP: Reasonably anticipated to be a human carcinogen
Naphthalene	IARC 2B: Possibly carcinogenic to humans
Naphthalene	GHS/CLP: Carcinogenicity Category 2
Fuels, diesel	ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans
Fuels, diesel	GHS/CLP: Carcinogenicity Category 2
Distillates (Fischer - Tropsch) C8-C26 Branched and Linear	GHS/CLP: No carcinogenicity classification
Kerosine (Fischer - Tropsch) Full range, C8-C16 branched and linear alkanes	GHS/CLP: No carcinogenicity classification
Cumene	IARC 2B: Possibly carcinogenic to humans
Cumene	GHS/CLP: No carcinogenicity classification

Reproductive and Developmental Toxicity	Not expected to impair fertility. Not expected to be a developmental toxicant.
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Specific Target Organ Toxicity - Single Exposure	High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Specific Target Organ Toxicity - Repeated Exposure	Kidney: Caused kidney effects in male rats which are not considered relevant to humans.
Additional Information	Classifications by other authorities under varying regulatory frameworks may exist.

12. ECOLOGICAL INFORMATION

Basis for Assessment

Information given is based on knowledge of the components and the ecotoxicology of similar products. Fuels are typically made from blending several refinery streams. Eco toxicological studies have been carried out on a variety of hydrocarbon blends and streams but not those containing additives. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Acute Toxicity	Expected to be toxic: LL/EL/IL50 > 1 <= 10 mg/l (to aquatic organisms) LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract.
Fish	Expected to be toxic: LL/EL/L50 > 1 <= 10 mg/l
Aquatic Crustea	Expected to be toxic: LL/EL/IL50 > 1 <= 10 mg/l
Algae/Aquatic Plants	Expected to be toxic: LL/EL/IL50 > 1 <= 10 mg/l
Microorganisms	Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Chronic Toxicity	
Fish	NOEC/NOEL expected to be > 0.01 - <= 0.1 mg/l (based on modelled data)
Aquatic Crustea	NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l (based on modelled data)
Mobility	Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. If product enters soil, one or more constituents will be mobile and may contaminate groundwater. Large volumes may penetrate soil and could contaminate groundwater. Floats on water.
Persistence and Degradability	Not Persistent per IMO criteria. International Oil Pollution Compensation (IOPC) Fund definition: "A non- persistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distills at a temperature of 340°C (645°F) and (b) at least 95% of which, by volume, distills at a temperature of 370°C (700°F) when tested by the ASTM Method D-86/78 or any subsequent revision thereof." Expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.
Bioaccumulative Potential	Contains constituents with the potential to bioaccumulate. Log Kow > =4.
Other Adverse Effects	Films formed on water may affect oxygen transfer and damage organisms.



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13. DISPOSAL CONSIDERATIONS

Disposal Methods Dispose of waste according to Federal, EPA, State and Local Regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain hazardous residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

14. TRANSPORT INFORMATION

Proper Shipping Name Kerosene
UN number 1223
DG Class 3
Subsidiary Risk 1 Non Allocated
Packaging Group III
Hazchem Code 3YE
Marine Pollutant Yes
Special Precautions for User Refer to incompatibilities in Section 7 and stability and reactivity information in Section 10.
Additional Transport Requirements Nil

15. REGULATORY INFORMATION

Poisons Schedule (SUSMP) None allocated
AICS All the constituents of this material are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point: Technical Information: Ted Powell 0425 800 022

Date of Preparation or last revision of SDS SDS reviewed: November 2022

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
ADG Code	Australian Code for the Transport of Dangerous Goods by Road & Rail
AICS	Australian Inventory of Chemical Substances
CAS Number	Chemical Abstracts Service Registry Number
GHS	Globally Harmonised System of Classification and Labelling
HAZCHEM Code	Emergency action code of numbers and letters which gives information to emergency services
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
mg/m³	Milligrams per Cubic Metre
NOHSC	National Occupational Health and Safety Commission
ppm	Parts Per Million
STEL	Short Term Exposure Limit
SDS	Safety Data Sheet
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
TWA	Time Weighted Average



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This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user must review this SDS in the context of how the product will be handled in the workplace and in conjunction with other materials. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Company accepts no responsibility for any injury, loss or damage, resulting from abnormal use of the material or from any failure to adhere to recommendations. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

END OF SDS