

SDS no. 3KK2C1P2 • Version 1.0 • Date of issue: 2022-08-08

GHS Product identifier

Product number	6277/
Brand	ACB

Laboratory and Analytical Reagent

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CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2

GHS label elements, including precautionary statements

Safety Data Sheet

Multi Elements 5000mg/L K Ca Mg Na 100 mg/L Al As Ba Be Cd Cr Co Cu Fe Pb Mn Ni Se Ag Ti V Zn

Pictograms



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation

H319

Causes serious eye irritation

Precautionary statement(s)

P264

Wash hands thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352

IF ON SKIN: Wash with plenty of water/soap.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

P362+P364

Take off contaminated clothing and wash it before reuse.

SECTION 3: Composition/information on ingredients

Mixtures

Other components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Hazardous components

Component	Concentration
Nitric acid (70% to 80%) (CAS no.: 7697-37-2; EC no.: 231-714-2; Index no.: 007-030-00-3)	<= 1 % (volume)
CLASSIFICATIONS: Oxidizing liquids, Cat. 3; Acute toxicity, inhalation, Cat. 3; Skin corrosion/irritation, Cat. 1A. HAZARDS: H272 - May intensify fire; oxidizer; H314 - Causes severe skin burns and eye damage; H331 - Toxic if inhaled. [SCLs/M-factors/ATEs]: Inhalation: ATE = 2.65 mg/L (Vapours); Ox. Liq. 3; H272: C ≥ 65 %; Skin Corr. 1A; H314: C ≥ 20 %; Skin Corr. 1B; H314: 5 % ≤ C < 20 %	

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once).

If inhaled

If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

In case of skin contact

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

In case of eye contact

If in eyes, hold eyelids apart and flush eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes.

If swallowed

If swallowed, do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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Indication of immediate medical attention and special treatment needed, if necessary

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam. This material is substantially water.

Specific hazards arising from the chemical

Contact with metals may produce hydrogen gas. Excess thermal conditions or contact with combustible materials may cause decomposition and yield nitrogen oxides.

Hazardous Combustion Products

Hydrogen, nitrogen oxides.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Vapours can accumulate in low areas. For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the applicable local and national regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Corrosive liquid. Attacks skin and eyes. Causes burns. Avoid breathing in vapours, mist or fumes. Wear suitable protective clothing, gloves and eye/face protection when mixing and using. Use in designated areas with adequate ventilation. Keep containers tightly closed. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands after handling, and before eating, drinking, smoking or using the toilet facilities. Avoid exposure. Do not handle until all safety precautions have been read and understood.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8: Exposure controls/personal protection

Control parameters

1. Nitric acid (70% to 80%) (CAS: 7697-37-2)

TWA (Inhalation): 2 ppm; 5.2 mg/m³; Australia (AU/SWA)

STEL (Inhalation): 4 ppm; 10 mg/m³; Australia (AU/SWA)

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Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Body protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.)	Clear colourless liquid
Odor	Slight acidic odor
Odor threshold	No data available.
pH	Acidic (pH < 1)
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	N/A
Evaporation rate	No data available.
Flammability (solid, gas)	Not flammable
Upper/lower flammability or explosive limits	N/A
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	Approx 1
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.

Additional properties

Physical state	Liquid
Color	Colourless
Explosive properties	No data available.
Oxidizing properties	No data available.

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Particle characteristics

No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Reacts with incompatible materials

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

May react vigorously or violently with the incompatible materials listed above. Excess thermal conditions may yield hazardous nitrogen oxides. Contact with metals may produce hazardous concentrations of hydrogen gas.

Will corrode metals. Will produce toxic gases on contact with cyanides, sulphides etc.

Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials

Strong bases, strong oxidisers, reducing agents, metals, combustible materials.

Hazardous decomposition products

Nitrogen oxides, hydrogen.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Corrosive. Oxidiser. May be harmful if swallowed, inhaled, or absorbed through the skin. Causes irritation of the eyes, skin, respiratory tract, and gastrointestinal tract. May enter lungs if swallowed or vomited. Liquid and vapors are corrosive. May cause tissue damage.

Skin corrosion/irritation

May be irritating to skin. The symptoms may include redness, itching and swelling.

Serious eye damage/irritation

May be irritating to eyes. The symptoms may include redness, itching and tearing.

Respiratory or skin sensitization

Inhalation of product vapours may cause irritation of nose, throat and respiratory system and possible harmful corrosive effects to the respiratory system. Not expected to be a respiratory or skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

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Reproductive toxicity

Not considered to be toxic to reproduction.

Specific target organ toxicity (STOT) - single exposure

Not expected to cause toxicity to a specific target organ.

Specific target organ toxicity (STOT) - repeated exposure

Not expected to cause toxicity to a specific target organ.

Aspiration hazard

Not expected to be an aspiration hazard.

SECTION 12: Ecological information

Toxicity

No data available on product

Persistence and degradability

No data available on product

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No data available.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 3264

Class: 8

Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Contains Nitric Acid)

Marine pollutant: No

IERG No: 154

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Hazchem emergency action code (EAC)

2X

IMDG

UN Number: 3264

Class: 8

Packing Group: III

EMS Number: F-A, S-B

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Contains Nitric Acid)

Special Provisions: 223, 274

Marine Pollutant: No

IATA

UN Number: 3264

Class: 8

Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Contains Nitric Acid)

Pax/Cargo Pkg Inst: 852

Max Net Qty/Pkg: 5L

Cargo Aircraft Only Pkg Inst: 856

Max Net Qty/Pkg: 60L

Special Provisions: A3, A803

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

S5

SECTION 16: Other information

Further information/disclaimer

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Preparation information

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

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Safe Work Australia, Workplace Exposure Standards for Airbourne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)