

Proxitane

Classification of Product:

Classified as **HAZARDOUS** according to criteria of the Globally Harmonised System of Classification and Labelling of Chemicals 3rd Revised Edition.

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

1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

- a. Product name: PROXITANE
- b. Other means of identification: NA
- c. Recommended use of the chemical
 - Cleaning agent
 - Disinfectants and general biocidal products
 - Water treatment
 - Oxidising AgentsManufacturer details:
 - Solvay Interox Pty Ltd
 - 20-22 McPherson St
 - NSW 2019 Banksmeadow
 - AUSTRALIA
 - Phone: +61 02 9316 8000
 - Fax: +61 02 9316 6445
- a. Poisons information centre: 13 11 26 (Australia)

2. HAZARD(S) IDENTIFICATION

a. Classification of the chemical: Hazardous

- i. Flammable liquids, Category 4
- ii. Organic peroxides, Type F
- iii. Corrosive to metals, Category 1
- iv. Acute toxicity, Category 4
- v. Acute toxicity, Category 4
- vi. Acute toxicity, Category 4
- vii. Skin corrosion, Category 1A
- viii. Serious eye damage, Category 1
- ix. Specific target organ toxicity – single exposure, Category 3

Hazardous products which must be listed on the label

- | | |
|------------------------|-------------------|
| x. CAS-No. 64-19-7 | Acetic acid |
| xi. CAS-No. 79-21-0 | Peracetic acid |
| xii. CAS-No. 7722-84-1 | Hydrogen peroxide |

Signal Word: **Danger**

Pictogram(s):



Hazard Statements

H227: Combustible liquid.

H242: Heating may cause a fire.

H290: May be corrosive to metals.

H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled.

H314: Causes severe skin burns and eye damage

H335: May cause respiratory irritation.

Hazard statement(s): NA

H401: Toxic to aquatic life

H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220 Keep/Store away from clothing/combustible materials.

P234 Keep only in original container.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 Immediately call a POISON CENTER or doctor/physician

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P390 Absorb spillage to prevent material damage.

Storage:
P403+P233 Store in well-ventilated place. Keep container tightly closed.

Disposal:
None

Poisons Schedule (SUSMP): 6

Other Hazards which do not result in classification

Acute aquatic toxicity, Category 2
Chronic aquatic toxicity, Category 1

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS number	Proportion	Hazard Codes
Acetic acid	64-19-7	>=30%<40%	H226, H314, H318
Peracetic acid	79-21-0	>=10%<20%	H226, H242, H302, H332, H312, H314, H318, H335
Hydrogen peroxide	7722-84-1	>=10%<20%	H271, H302, H332, H314, H318, H335

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:

Move to fresh air, oxygen or artificial respiration if needed, victim to lie down in the recovery position, cover and keep them warm, call a physician immediately.

Skin Contact:

Take off contaminated clothing and shoes immediately, wash off immediately with plenty of water, keep warm and in a quiet place, call a physician or poison control centre immediately, wash contaminated clothing before re-use.

Eye Contact:

Call a physician or poison control centre immediately, rinse immediately with plenty of water, also under

the eyelids for at least 15 minutes, in the case of difficulty of operating the lids, administer an analgesic eye wash (oxybuprocaine), take victim immediately to hospital.

Ingestion:

Call a physician or poison control centre immediately, take victim immediately to hospital, if swallowed, rinse mouth with water (only if the person is conscious), do NOT induce vomiting, artificial respiration and/or oxygen may be necessary.

Most important symptoms and effects, both acute and delayed.

Inhalation

Symptoms

Breathing difficulties

Cough

Chemical pneumonitis

Pulmonary oedema

Effects

Corrosive to respiratory system

Repeated or prolonged exposure

Nose bleeding

Risk of chronic bronchitis

Skin contact

Symptoms

Redness

Swelling of tissue

Effects

Corrosive

Causes severe burns

Eye contact

Symptoms

Redness

Lachrymation

Swelling of tissue

Effects

Corrosive

Causes severe burns

May cause irreversible eye damage

May cause blindness

Ingestion

Symptoms

Nausea

Abdominal pain

Bloody vomiting

Diarrhoea

Suffocation

Cough

Severe shortness of breath

Effects

Severe burns of mouth and throat

Danger of perforation of oesophagus and stomach

Risk of respiratory disorder

Indication of any immediate medical attention and special treatment needed

Notes to physician

Take victim immediately to hospital.

Immediate medical attention is required.

Consult with an ophthalmologist immediately in all cases.

Burns must be treated by a physician.

If swallowed.

Avoid gastric lavage.

Keep under medical supervision for at least 48 hours.

5. FIRE-FIGHTING MEASURES

a. **Suitable extinguishing equipment:**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Water

Water spray

b. **Unsuitable extinguishing media:**

None

c. **Specific hazards arising from the chemical**

Heating may cause a fire

Oxygen released in thermal decomposition may support combustion

d. **Special protective equipment and precautions for fire fighters:**

In the event of a fire, wear self-contained breathing apparatus.

Use personal protective equipment.
Wear chemical resistant oversuit
Cool containers/tanks with water spray
Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazchem Code: 2W

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Advice for non-emergency personnel.

Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.

Advice for emergency responders.

Use personal protective equipment.
Drying of this product on clothing or combustible materials may cause fire.
Keep wetted with water.
Prevent further leakage or spillage.
Keep away from incompatible products.

Environmental precautions:

Discharge into the environment must be avoided.
Do not flush into surface water or sanitary sewer system.
In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State/Provincial, and local laws and regulations.

Methods and materials for containment and cleaning up:

Dam up.
Soak up with inert absorbent material.
Do not let product enter drains.
Keep in suitable, closed containers for disposal.
Keep in properly labelled containers.

7. HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

Precautions for safe handling

Use only in well-ventilated areas.
Before all operations, passivate the piping circuits and vessels according to the procedure recommended by the producer.
Use only clean and dry utensils.
Never return unused material to storage receptacle.

May not get in touch with:
 Organic materials
 Keep away from incompatible products
 Keep away from heat.

Hygiene measures

Ensure that eyewash stations and safety showers are close to the workstation location.
 Take off contaminated clothing and shoes immediately.
 Wash contaminated clothing before re-use.
 When using do not eat, drink or smoke.
 Wash hands before breaks and at the end of workday.
 Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities Technical measures/Storage conditions

Store in original container.
 Keep tightly closed in a dry, cool and well-ventilated place.
 Keep in properly labelled containers.
 Keep in a bunded area.
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Electrical equipment should be protected to the appropriate standard.
 Keep away from incompatible products
 Organic Peroxide Storage (Burning Rate) Type IV according to the BGV B4 test method

Packaging material Suitable material

Approved grades of HDPE.
 Stainless steel cleaned and passived

Specific end use(s)

Contact your supplier for additional information

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Components with national occupational exposure limits

Components	Value type	Value	Basis
acetic acid	TWA	10 ppm 25 mg/m ³	Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment
acetic acid	STEL	15 ppm 37 mg/m ³	Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment
hydrogen peroxide	TWA	1 ppm 1.4 mg/m ³	Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment

Components with other occupational exposure limits

Components	Value type	Value	Basis
acetic acid	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
acetic acid	STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
peracetic acid	STEL	0.4 ppm	USA. ACGIH Threshold Limit Values (TLV) Form of exposure : Inhalable fraction and vapor
hydrogen peroxide	TWA	1 ppm	USA. ACGIH Threshold Limit Values (TLV)

Exposure controls

Control measures

Engineering measures

Ensure adequate ventilation.

Apply technical measures to comply with the occupational exposure limits.

Individual protection measures

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Respirator with a vapour filter (EN 141)

Recommended Filter type: ABEK-P2

Hand protection

Impervious gloves

Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Suitable material

butyl-rubber

Break through time: > 480 min

Glove thickness: >= 0.4 mm

Eye protection

Chemical resistant goggles must be worn.

If splashes are likely to occur, wear:

Tightly fitting safety goggles

Face-shield

Skin and body protection

Apron/boots of butyl rubber if risk of splashing.

Hygiene measures

Ensure that eyewash stations and safety showers are close to the workstation location.

Take off contaminated clothing and shoes immediately.

Wash contaminated clothing before re-use.

When using do not eat, drink or smoke.

Wash hands before breaks and at the end of workday.

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Dispose of rinse water in accordance with local and national regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Form: liquid Physical state: liquid Colour: colourless
Odour	Pungent
Odour Threshold	no data available
pH	< 1.5 pKa: 8.2 (25 °C)
Freezing point	ca. -42 °C
Method:	Calculation method
Boiling point/boiling range	ca. 105 °C
Method:	Calculation method
Flash point	68 - 81 °C Method: closed cup
Evaporation rate (Butylacetate = 1)	no data available
Flammability (liquids)	Not applicable Heating may cause a fire.
Flammability/Explosive limit	Explosiveness: Not explosive
Auto-ignition temperature	270 - 430 °C
Vapour pressure	ca. 32 hPa (25 °C) Method: Calculation method
Vapour density	no data available
Density Relative density:	1.1
Solubility	Water solubility: 1,000 g/l (20 °C) completely miscible Solubility in other solvents: organic polar solvents: soluble

Aromatic solvents: slightly soluble

Partition coefficient: n-octanol/water log Pow: -1.25
Method: Calculation method

log Pow: -0.52
Method: measured value

Thermal decomposition

>= 55 °C
Self-Accelerating decomposition temperature (SADT)

Viscosity

no data available

Explosive properties

Not explosive

Oxidizing properties

Oxidizer

Other information

Henry's Constant

22 Pa.m³/mol
not significant, Air, Volatility

Corrosion of Metals

Corrosive to metals

Peroxides

The substance or mixture is an organic peroxide classified as type F.

10. STABILITY AND REACTIVITY

Reactivity

Decomposes on heating.
Heating may cause a fire.
Potential for exothermic hazard

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Contact with combustible material may cause fire.
Contact with flammables may cause fire or explosions.
Risk of explosion if heated under confinement.
Fire or intense heat may cause violent rupture of packages.

Conditions to avoid

Contamination
To avoid thermal decomposition, do not overheat.

Incompatible materials

Acids
Bases
Metals

Heavy metal salts
Powdered metal salts
Reducing agents
Organic materials
Flammable materials

Hazardous decomposition products

Oxygen

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Acute oral toxicity	LD50: 652 mg/kg – Rat Test substance: 11,7 % PAA mixture
Acute inhalation toxicity	LC50 – 4 h (dust/mist) 4 mg/l – Rat Test substance: 5% PAA mixture
Acute dermal toxicity	LD50 1,957 mg/kg – Rabbit Test substance: 11,7% PAA mixture
Acute toxicity (other routes of administration)	No data available

Skin corrosion/irritation

Rabbit
Corrosive

Serious eye damage/eye irritation

Rabbit
Causes serious eye damage

Respiratory or skin sensitisation

Guinea pig.
Did not cause sensitisation on laboratory animals

Mutagenicity

Genotoxicity in vitro	In vitro tests have shown mutagenic effects
Genotoxicity in vivo	Animal testing did not show any mutagenic effects

Carcinogenicity

No data available

Toxicity for reproduction and development

Toxicity to reproduction/fertility	No toxicity to reproduction
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Developmental toxicity/ Teratogenicity

Rat
Test substance: 15% PAA mixture
No effect observed on development
Published Data

STOT

Single Exposure	May cause respiratory irritation
Repeated Exposure	The substance or mixture is not classified as specific target organ toxicant

	Ingestion 13 weeks – Rat NOAEL: 0.75 mg/kg Test substance: Peracetic acid Oral 90 day – Mouse NOAEL: 100ppm Test substance: Hydrogen peroxide Inhalation 90 day – Rat NOAEL: 7ppm Test substance: Hydrogen peroxide.
Experience with human exposure	
Inhalation	No data available
Ingestion	No data available
CMR Effects	
Carcinogenicity	
Acetic acid	No evidence of carcinogenicity in animal studies.
Mutagenicity	
Acetic acid	Tests on bacterial or mammalian cell cultures did not show mutagenic effects
Aspiration toxicity	Not applicable
Further Information	No data available

12. ECOLOGICAL INFORMATION

Toxicity	
Aquatic Compartment	
Acute toxicity to fish sunfish)	LC50 - 96 h: 1.1 mg/l - Lepomis macrochirus (Bluegill)
	NOEC - 33 d: 0.00094 mg/l - Danio rerio (zebra fish) Early-life
Acute toxicity to daphnia and other aquatic invertebrates.	Stage EC50 - 48 h: 0.73 mg/l - Daphnia magna (Water flea)
Toxicity to aquatic plants (green	EC50 - 96 h : 0.16 mg/l - Pseudokirchneriella subcapitata algae)
Toxicity to microorganisms	no data available
Chronic toxicity to fish	NOEC: 0.00094 mg/l - 33 Days - Danio rerio (zebra fish) Early-life stage Test substance: Pure substance
Chronic toxicity to daphnia and other aquatic invertebrates.	no data available

Persistence and degradability**Biodegradation**

Biodegradability

aerobic

Biodegradable.

Effects on wastewater treatment plants Inhibitor

Method: Abiotic degradation

Degradability assessment

Acetic acid

The product is considered to be rapidly degradable in the environment

Bioaccumulative potential**Partition coefficient: n-octanol/water**

acetic acid

Not potentially bioaccumulable

Bioconcentration factor (BCF)

Does not bioaccumulate.

Mobility in soil

Adsorption potential (Koc)

Water

Soluble

mobile

Soil/sediments

non-significant adsorption

Known distribution to environmental compartments

acetic acid

Ultimate destination of the product: Water

Structure-

activity relationship (SAR)

Air

Structure-activity relationship (SAR)

Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Other adverse effects

no data available

Ecotoxicity assessment**Acute aquatic toxicity**

Information refers to the main component.

Chronic aquatic toxicity

Information refers to the main component.

Waste treatment methods

Product Disposal

Contact manufacturer.

Contact waste disposal services.

In accordance with local and national regulations.

Advice on cleaning and disposal of packaging

Empty containers.

Clean container with water.

Dispose of rinse water in accordance with local and national regulations.

Where possible recycling is preferred to disposal or incineration.

In accordance with local and national regulations.

14. TRANSPORT INFORMATION

Road and Rail transport –ADG (Australia)

UN number	UN 3109
Proper shipping name	ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic acid, Type F, stabilized)
Transport hazard class	5.2
Subsidiary hazard class	8
Label(s)	5.2 (8)
Packing group	
Packing group	
Hazchem Code	2W
Environmental hazards	
Marine pollutant	YES

Special precautions for user

For personal protection see section 8.

IMDG

UN number	UN 3109
Proper shipping name	ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic acid, Type F, stabilized)
Transport hazard class	5.2
Subsidiary hazard class	8
Label(s)	5.2 (8)

Packing group

Packing group

Environmental hazards Marine pollutant

Special precautions for user

EmS F-J, S-R

For personal protection see section 8.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

IATA

UN number UN 3149

Proper shipping name HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED

Transport hazard class 5.1

Subsidiary hazard class: HEAT, 8

Label(s): 5.1 (HEAT, 8)

Packing group: II

Hazchem Code: 2P

Packing instruction (cargo aircraft) 570

Max net qty/pkg 25.00 L

Packing instruction (passenger aircraft) 570

Max net qty/pkg 10.00 L

Environmental hazards YES

Special precautions for user

For personal protection see section 8.

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture Poison Schedule (SUSMP Australia)

Schedule 6: Poison

Notification status

Inventory Information	Status
United States TSCA Inventory	- Listed on Inventory
Mexico INSQ (INSQ)	- Listed on Inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- Listed on Inventory
Australia Inventory of Chemical Substances (AICS)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory

Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	- If product is purchased from Solvay in Europe it is in compliance with REACH, if not please contact the supplier.

16. OTHER RELEVANT INFORMATION

This Safety Data Sheet (SDS) has been prepared by Dalcon Hygiene

Full text of H-Statements

- H226 Flammable liquid and vapour.
- H227 Combustible liquid.
- H242 Heating may cause a fire.
- H271 May cause fire or explosion; strong oxidiser.
- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H401 Toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

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

STEL Exposure standard - short term exposure limit

TWA Exposure standard - time weighted average

ca. approximately