SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name AGRHO® N PROTECT G2

1.2 Relevant identified uses of the substance or mixture and uses advised against

Uses of the Substance/Mixture

- Urease Inhibitor
- Agrochemicals

Remarks

- This product may rapidly contribute towards a highly hazardous environment within a confined space (e.g. Within ISO tanks, reactors, silos, etc.).
- Risk assessments should be conducted prior to handling this product / material.

1.3 Details of the supplier of the safety data sheet

Company

CYTEC AUSTRALIA HOLDINGS PTY LTD.
Suite 1, Level 1, 21 Solent Cct.,
Baulkham Hills, 2153 Australia
Telephone: +61 2 9846 6200

E-mail address

For questions about SDS content: manager.sds@syensqo.com
For all other topics use: www.syensqo.com/en/form/documentation

1.4 Emergency telephone number

+61 2 8014 4558 [CareChem 24]

MULTI LINGUAL EMERGENCY NUMBER (24/7)

Europe/Latin America/Africa:+44 1235 239 670 (UK)

Middle East/Africa speaking Arabic: +44 1235 239 671 (UK)

Asia Pacific : +65 3158 1074 (Singapore)

China : 400 120 6011 (toll-free, access from China only)

North America : +1 800 424 9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Work Health and Safety Regulation 2011

- Serious eye damage , Category 1 — H318: Causes serious eye damage.
- Reproductive toxicity , Category 2 — H361: Suspected of damaging fertility or the unborn child.

SUSMP (AU)

- Not scheduled

Please use the original publication to check for specific uses, specific conditions or threshold limits that might apply for this chemical.

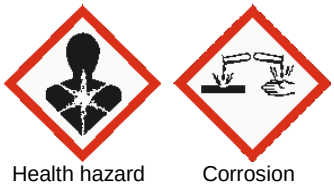
2.2 Label elements

Work Health and Safety Regulation 2011

Hazardous products which must be listed on the label

- CAS-No. 94317-64-3 Phosphorothioic triamide, butyl-

Pictogram



Health hazard Corrosion

Signal word

- Danger

Hazard statements

- H318 Causes serious eye damage.
- H361 Suspected of damaging fertility or the unborn child.

Precautionary statements

Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response

- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage

- P405 Store locked up.

Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

- Inhalation may provoke the following symptoms:
- Nausea
- Nose bleeding

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

Information on Components and Impurities

Chemical name	CAS-No.	GHS Classification	Concentration [%]
Phosphorothioic triamide, butyl-	94317-64-3	Serious eye damage, Category 1 ; H318 Reproductive toxicity, Category 2 ; H361	>= 25 - < 30
Propane-1,2-diol	57-55-6	Not classified	>= 5 - < 10
Non-hazardous ingredients *			Balance

* (Ingredients present at non-hazardous concentrations, according to criteria of SWAC (Australia) based on available information).

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

- Plan first aid action before beginning work with this product.

- First aider needs to protect himself.
- Rescuers should wear PPE during rescue and decontamination of victims.

- Do not leave the victim unattended until the arrival of medical responders.
- Show this safety data sheet to the doctor in attendance.

- Place affected clothing in a sealed bag for subsequent decontamination.

- Medical evaluation and/or advice necessary even only on suspicion of exposure to this product.

In case of inhalation

- Rescuers should put on appropriate protective gear for rescue.

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Keep patient warm and at rest.
- Consult a physician.
- Get medical attention immediately if symptoms occur.

In case of skin contact

- Take off contaminated clothing and shoes immediately.
- Wash off immediately with plenty of water.

- Get medical attention immediately if symptoms occur.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids.
- Take victim immediately to hospital.
- Continue rinsing eyes during transport to hospital.

In case of ingestion

- Do not induce vomiting without medical advice.
- Rinse mouth with water.
- Do not give anything to drink.
- Keep at rest.
- Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

- Symptoms will depend on the target organs.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

- Extinguishing media - small fires
- Water spray
- Carbon dioxide (CO2)
- Multi-purpose powders
- Alcohol-resistant foam

- Extinguishing media - large fires
- Water spray
- Multi-purpose powders
- Alcohol-resistant foam

Unsuitable extinguishing media

- Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting

- The pressure in sealed containers can increase under the influence of heat.

- In case of heating:
- Harmful or toxic vapours are released.

- Hazardous decomposition products formed under fire conditions.
- High concentrations of toxic or harmful products may remain in the residual liquid once the fire has been extinguished.

Hazardous combustion products:

- On combustion or on thermal decomposition (pyrolysis) releases:
- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Nitrogen oxides (NOx)
- Oxides of phosphorus
- Sulphur oxides
- hydrogen sulphide
- Methanethiol

5.3 Advice for firefighters

Special protective equipment for firefighters

- Wear full protective clothing and self-contained breathing apparatus.
- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing.

Specific fire fighting methods

- Stay upwind.

- Fight fire with normal precautions from a reasonable distance.

- Do not use a solid water stream as it may scatter and spread fire.
- Cool down the containers/equipment exposed to heat with a water spray. Ensure that there is NO direct contact between the water and the product.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information

- Evacuate personnel to safe areas.

- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- Never approach containers which have been exposed to fire, without cooling them sufficiently.

- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Immediately evacuate personnel to safe areas.
- Stay upwind.
- Only qualified personnel equipped with suitable protective equipment may intervene.

- Avoid inhalation, ingestion and contact with skin and eyes.
- Wear chemical resistant personal protective equipment.
- Wear suitable gloves.
- Wear suitable protective clothing.

- Wear respiratory protection.

- Wear as appropriate:
- Faceshield or an appropriate full face protection.

- Ventilate the area.

- Stop leak if safe to do so.

- If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire brigade).
- Isolate spill or leak area in a radius of at least 50 meters.

- For further information refer to section 8 "Exposure controls/personal protection".

6.2 Environmental precautions

- Prevent further leakage or spillage if safe to do so.
- Contain the spilled material by bunding.
- The product should not be allowed to enter drains, water courses or the soil.

- Local authorities should be advised if significant spillages cannot be contained.
- If the product contaminates rivers and lakes or drains inform respective authorities.
- If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

6.3 Methods and materials for containment and cleaning up

- Stop leak if safe to do so.
- Dam up with sand or inert earth (do not use combustible materials).

- Control the vapours with:
- Alcohol-resistant foam

- Soak up with inert absorbent material.
- Shovel or sweep up.
- Keep in suitable, closed containers for disposal.
- Never return spills in original containers for re-use.

- Wash non-recoverable remainder with large amounts of water.
- Clean contaminated surface thoroughly.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.

- Dispose of as hazardous waste in compliance with local and national regulations.

Additional advice

- Possible need to alert the neighbourhood.

- Mark the contaminated area with signs and prevent access to unauthorized personnel.

- Only qualified personnel equipped with suitable protective equipment may intervene.

- Ventilate the area.

- Following decontamination, the use of appropriate Personal Protective Equipment may be required to enter the affected area for several hours to avoid exposure to any leftover residues.

- Material can create slippery conditions.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Handle in accordance with good industrial hygiene and safety practice.
- Risk assessments, along with appropriate identification and implementation of the corresponding risk controls, are to be conducted by competent person(s) on the intended work processes involving this product.

- This product may rapidly contribute towards a highly hazardous environment within a confined space (e.g. Within ISO tanks, reactors, silos, etc.).

- This product / material has CMR (Carcinogenicity, Mutagenicity, Reproductive toxicity) related hazards.
- Pregnant or breastfeeding workers should not be exposed to this product.

- The product must only be handled by specifically trained employees.

- Provide sufficient air exchange and/or exhaust in work rooms.
- Vapour extraction at source.
- Do not use in areas without adequate ventilation.
- Extracted air must not be allowed to return to the workplace.

- Advice on safe handling

- If dust production may be expected from further processing, handling or by other means:
- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
- Provide for appropriate exhaust ventilation and dust collection at machinery.
- Dust must be extracted directly at the point of origin.
- Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

- Any anticipated splash and/or aerosol generation should be contained using suitable engineering controls.

- Wear personal protective equipment.
- Wear suitable protective clothing.

- Avoid inhalation, ingestion and contact with skin and eyes.
- Do NOT handle without gloves.

- For personal protection, see section 8.

Hygiene measures

- Handle in accordance with good industrial hygiene and safety practice.
- Use clean, well-maintained personal protection equipment.
- Regular cleaning of equipment, work area and clothing.
- When using do not eat, drink or smoke.
- Smoking, eating and drinking should be prohibited in the application area.
- Wash hands before breaks and immediately after handling the product.
- Contaminated work clothing should not be allowed out of the workplace.

- The user is responsible for monitoring the working environment in accordance with local laws and regulations.
- The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Air sampling and / or biological monitoring of the substances shown in Section 8.1 are to be conducted using methods accepted by local competent authorities responsible for workplace safety and health.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

- Keep in a bunded area.
- The floor of the storage area should be impermeable and designed to form a water-tight basin.

- Keep locked up or in an area accessible only to qualified or authorised persons.

- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer.

- Keep away from: Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: Stability-Reactivity).

Packaging material

Suitable material
- Plastic materials.

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with national occupational exposure limits

Components	Value type	Value	Basis
Propane-1,2-diol	TWA	150 ppm 474 mg/m3	Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment
	Form of exposure : Total (vapour and particles)		

8.2 Exposure controls

Control measures

Engineering measures

- Risk assessments, along with appropriate identification and implementation of the corresponding risk controls, are to be conducted by competent person(s) on the intended work processes involving this product.

- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :

- Facilities and equipment easily cleanable.

- Enclosure and/or isolation of emission source.

- Effective exhaust ventilation system.
- Extract at emission point.
- Ensure adequate ventilation.
- Ensure that extracted air cannot be returned to the workplace through the ventilation system.

- Any anticipated splash and/or aerosol generation should be contained using suitable engineering controls.

- If dust production may be expected from further processing, handling or by other means:
- Dust must be extracted directly at the point of origin.
- Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Individual protection measures

Respiratory protection

- This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.
- If mist is formed:
- If vapour is released:
- Wear a positive-pressure supplied-air respirator with full facepiece.
- Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices.
-

Hand protection

- Where there is a risk of contact with hands, use appropriate gloves.
- Gloves must be inspected prior to use.
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

- Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Suitable material

- butyl-rubber

- Nitrile rubber

- Neoprene

Eye protection

- Faceshield or an appropriate full face protection.

- Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337.1 Personal eye protection - Eye and face protectors for occupational applications.

Skin and body protection
- Lightweight protective clothing.
- Footwear protecting against chemicals.

- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
- Handle in accordance with good industrial hygiene and safety practice.
- Use clean, well-maintained personal protection equipment.
- Regular cleaning of equipment, work area and clothing.
- When using do not eat, drink or smoke.
- Smoking, eating and drinking should be prohibited in the application area.
- Wash hands before breaks and immediately after handling the product.
- Contaminated work clothing should not be allowed out of the workplace.

- The user is responsible for monitoring the working environment in accordance with local laws and regulations.
- The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Air sampling and / or biological monitoring of the substances shown in Section 8.1 are to be conducted using methods accepted by local competent authorities responsible for workplace safety and health.

Protective measures
- Emergency equipment immediately accessible, with instructions for use.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and/or risks that may occur during use.

- The protective equipment must be selected in accordance with current AS/NZS standards and in cooperation with the supplier of the protective equipment.

Environmental exposure controls

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

- Local authorities should be advised if significant spillages cannot be contained.
- If the product contaminates rivers and lakes or drains inform respective authorities.
- If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid (20 °C)
Colour	dark green
Odour	characteristic Do not attempt to smell the product as it is hazardous.
Odour Threshold	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flammability (solid, gas)	No data available
Flammability (liquids)	No data available

Flammability/Explosive limit	No data available
Flash point	> 100 °C does not flash
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	7.0 - 9.0 (5 %)
Viscosity	No data available
Solubility	Water solubility: miscible
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density	1.13 g/cm3 (20 °C)
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Evaporation rate (Butylacetate = 1)	No data available

9.2 Other information

Oxidizing properties	Not considered as oxidizing, Structure-activity relationship (SAR)

SECTION 10: Stability and reactivity

10.1 Reactivity

- Stable at normal ambient temperature and pressure.

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

- Keep away from open flames, hot surfaces and sources of ignition.
- Avoid excessive heat for prolonged periods of time.

10.5 Incompatible materials

- Strong oxidizing agents
- Strong reducing agents
- Acids

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Oxides of phosphorus
- Nitrogen oxides (NOx)
- Sulphur oxides
- Methanethiol
- Hydrogen sulphide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	Not classified as hazardous for acute oral toxicity according to GHS. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute inhalation toxicity	Not classified as hazardous for acute inhalation toxicity according to GHS. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute dermal toxicity	Not classified as hazardous for acute dermal toxicity according to GHS. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute toxicity (other routes of administration)	Not applicable
Skin corrosion/irritation	Not classified as irritating to skin. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Serious eye damage/eye irritation	Risk of serious damage to eyes. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

Respiratory or skin sensitisation

Phosphorothioic triamide, butyl-	Maximisation Test - Guinea pig Responding animals in GPMT < 30% Not classified as sensitising by skin contact according to GHS criteria Method: according to a standardised method Unpublished reports
propane-1,2-diol	Guinea pig Does not cause skin sensitisation. Method: OECD Test Guideline 406 Published data Local lymph node assay - Mouse Does not cause skin sensitisation. Published data

The product is not considered to be sensitizing by skin contact.
Patch test on human volunteers did not demonstrate sensitisation properties.
Published data
Unpublished reports

Mutagenicity

Genotoxicity in vitro

Product is not considered to be genotoxic.

According to the available data on the components.
According to the classification criteria for mixtures.
Unpublished reports and/or published data.

Genotoxicity in vivo

Product is not considered to be genotoxic.

According to the available data on the components.
According to the classification criteria for mixtures.
Unpublished reports and/or published data.

Carcinogenicity

propane-1,2-diol

Rat
Oral
Exposure time: two-year
in food
No carcinogenic effects have been observed
Published data

Toxicity for reproduction and development

Toxicity to reproduction/Fertility

Phosphorothioic triamide, butyl-

Fertility study 2 generations - Rat, male, Oral
General Toxicity - Parent NOAEL: 61 mg/kg
Fertility NOAEL F1: 18 mg/kg
OECD Test Guideline 416
Unpublished reports, Possible risk of impaired fertility.

Fertility study 2 generations - Rat, female, Oral
General Toxicity - Parent NOAEL: 17 mg/kg
Fertility NOAEL F1: 83 mg/kg
OECD Test Guideline 416
Unpublished reports, Possible risk of impaired fertility.

propane-1,2-diol

Fertility study 2 generations - Mouse, male and female, drinking water
Fertility NOAEL Mating/Fertility: 10,100 mg/kg
Developmental Toxicity NOAEL: 10,100 mg/kg
no impairment of fertility has been observed, Published data

Developmental Toxicity/Teratogenicity

Phosphorothioic triamide, butyl-

Rat, female, Oral
Test period: 10 Days
General Toxicity Maternal NOAEL: 125 mg/kg
Teratogenicity NOAEL:>= 500mg/kg
Method: OECD Test Guideline 414
Unpublished reports, no embryotoxic or teratogenic effects have been observed,
No effect observed on development

propane-1,2-diol

Mouse, male and female, Oral exposure
Teratogenicity NOAEL:10,100mg/kg
Method: Fertility study 2 generations
No effect observed on development, Published data

STOT

STOT - single exposure

propane-1,2-diol	The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. Internal evaluation.

STOT - repeated exposure

Phosphorothioic triamide, butyl-	Exposure routes: Ingestion The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria. Expert judgement
propane-1,2-diol	The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria. Internal evaluation.
Phosphorothioic triamide, butyl-	Oral 90 Days - Rat , male NOAEL: 74 mg/kg bw/day Published data Oral 90 Days - Rat , female LOAEL: 17 mg/kg bw/day Published data Method: OECD Test Guideline 408 Symptoms: female reproductive effects Unpublished reports effects on the reproductive system females
propane-1,2-diol	Oral two-year - Rat NOAEL: 1700 mg/kg bw/day in food No adverse effect has been observed in chronic toxicity tests. Published data Inhalation 2,160 h - Rat NOAEC: 1.01 mg/l Aerosol Not considered to cause serious damage to health on repeated exposure Published data

Experience with human exposure

Experience with human exposure : Inhalation

Phosphorothioic triamide, butyl-	Symptoms: Nose bleeding Vomiting Published data

CMR effects

Reproductive toxicity

Phosphorothioic triamide, butyl-	Suspected of damaging fertility.

Aspiration toxicity	Not classified for aspiration toxicity according to GHS criteria.
Aspiration toxicity	According to the available data on the components, According to the classification criteria for mixtures., Internal evaluation.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish	The product itself has not been tested. Global ecotoxicity assessment available below.
Acute toxicity to daphnia and other aquatic invertebrates	The product itself has not been tested. Global ecotoxicity assessment available below.
Toxicity to aquatic plants	The product itself has not been tested. Global ecotoxicity assessment available below.
Toxicity to microorganisms	The product itself has not been tested.
Chronic toxicity to fish	The product itself has not been tested. Global ecotoxicity assessment available below.
Chronic toxicity to daphnia and other aquatic invertebrates	The product itself has not been tested. Global ecotoxicity assessment available below.

Sediment compartment

Toxicity to benthic organisms	The product itself has not been tested.

Terrestrial Compartment

Toxicity to soil dwelling organisms	The product itself has not been tested.
Toxicity to terrestrial plants	The product itself has not been tested.
Toxicity to above ground organisms	The product itself has not been tested.

12.2 Persistence and degradability

Abiotic degradation

Stability in water	Conclusion is not possible for a mixture as a whole.
Photodegradation	Conclusion is not possible for a mixture as a whole.

Physical- and photo-chemical elimination

Physico-chemical removability	Conclusion is not possible for a mixture as a whole.

Biodegradation

Biodegradability	As (bio)degradability is not relevant for mixtures, all the components of the mixture were assessed individually (rapid degradability assessment available below).
Degradability assessment	Conclusion is not possible due to incomplete or heterogeneous data on the components.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

Phosphorothioic triamide, butyl-	Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.
Bioconcentration factor (BCF)	Conclusion is not possible due to incomplete or heterogeneous data on the components.

12.4 Mobility in soil

Adsorption potential (Koc)	Conclusion is not possible for a mixture as a whole.

Known distribution to environmental compartments

Phosphorothioic triamide, butyl-	Ultimate destination of the product : Soil
propane-1,2-diol	Ultimate destination of the product : Water
	Soil

12.5 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).

12.6 Other adverse effects

Ecotoxicity assessment

Short-term (acute) aquatic hazard

According to the available data on the components
No acute environmental hazard identified.

According to the classification criteria for mixtures.
Unpublished reports
Published data

Long-term (chronic) aquatic hazard

According to the available data on the components
No chronic environmental hazard identified.

According to the classification criteria for mixtures.
Unpublished reports
Published data

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- Dispose of as hazardous waste in compliance with local and national regulations.

Prohibition

- Do not discharge directly into the environment.
- Do not dispose of with domestic refuse.

Advice on cleaning and disposal of packaging

- Empty remaining contents.

- Clean using steam.
- Monitor the residual vapours.
- Dispose of rinse water in accordance with local and national regulations.

- Containers that cannot be cleaned must be treated as waste.

- Dispose of contents/ container to an approved waste disposal plant.
- Dispose of in accordance with local regulations.

- Where possible recycling is preferred to disposal or incineration.
- The recycled material must be completely dry and free of pollutants.

Prohibition

- Do NOT dispose of untreated packaging with industrial waste.
- Do not dispose of with domestic refuse.

SECTION 14: Transport information

Road and Rail transport – ADG (Australia)
not regulated

IMDG
not regulated

IATA
not regulated

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.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison Schedule (SUSMP Australia)

- Not scheduled
- Please use the original publication to check for specific uses, specific conditions or threshold limits that might apply for this chemical.

Notification status

Inventory Information	Status
United States TSCA Inventory	- Product contains substance(s) not listed on TSCA inventory.
Canadian Domestic Substances List (DSL)	- One or more components not listed on inventory
Australian Inventory of Industrial Chemicals (AIIC)	- One or more components not listed on inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- One or more components not listed on inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- One or more components not listed on inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- One or more components not listed on inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- One or more components not listed on inventory
Taiwan Chemical Substance Inventory (TCSI)	- One or more components not listed on inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand.
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Syensqo legal entity based in the EEA (""European" "Economic Area""), this product is compliant with the registration" provisions of the REACH Regulation (EC) No. 1907/2006 as all its

	components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.
Korea. Act on Registration and Evaluation of Chemicals	- When purchased from a Syensqo legal entity based in Korea, this product is compliant with "Act on Registration and Evaluation of Chemicals" (AREC or K-REACH, Article 10) as all its components are either excluded, exempt, and/or (pre)registered. When purchased from a legal entity outside of Korea, please contact your local representative for additional information.

SECTION 16: Other information

Full text of H-Statements

- H318: Causes serious eye damage.
- H361: Suspected of damaging fertility or the unborn child.

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

- TWA: Exposure standard - time weighted average
- ca.: approximately
- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Instructions for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- GHS/CLP/SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.