# OzCrop Pirimicarb 500 WG Aphicide
## OzCrop Pty Ltd

Chemwatch Hazard Alert Code: **3**

Chemwatch: **5312-47**
Version No: **4.1.1.1**
Safety Data Sheet according to WHS and ADG requirements

Issue Date: **01/11/2019**
Print Date: **24/08/2020**
S.GHS.AUS.EN

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

### Product Identifier

| | |
|---|---|
| **Product name** | OzCrop Pirimicarb 500 WG Aphicide |
| **Synonyms** | APVMA Code: 68494 |
| **Proper shipping name** | CARBAMATE PESTICIDE, SOLID, TOXIC (contains pirimicarb) |
| **Other means of identification** | Not Available |

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

| | |
|---|---|
| **Relevant identified uses** | Agricultural aphicide.<br>Use according to manufacturer's directions. |

### Details of the supplier of the safety data sheet

| | |
|---|---|
| **Registered company name** | **OzCrop Pty Ltd** |
| **Address** | G13/25 Solent Circuit Norwest NSW 2153 Australia |
| **Telephone** | (02) 8123 0170 |
| **Fax** | (02) 8123 0171 |
| **Website** | http://www.ozcrop.com.au |
| **Email** | orders@ozcrop.com.au |

### Emergency telephone number

| | |
|---|---|
| **Association / Organisation** | **In Transport Emergency DIAL 000** |
| **Emergency telephone numbers** | 1800 033 111 (24 hours - Australia wide) |
| **Other emergency telephone numbers** | Not Available |

## SECTION 2 Hazards identification

### Classification of the substance or mixture

| | |
|---|---|
| **Poisons Schedule** | S6 |
| **Classification [1]** | Acute Toxicity (Oral) Category 3, Acute Toxicity (Dermal) Category 3, Acute Toxicity (Inhalation) Category 4, Skin Sensitizer Category 1, Carcinogenicity Category 2, Acute Aquatic Hazard Category 1, Chronic Aquatic Hazard Category 1 |
| ***Legend:*** | *1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI* |

### Label elements

| | |
|---|---|
| **Hazard pictogram(s)** |  |
| **Signal word** | **Danger** |

### Hazard statement(s)

| | |
|---|---|
| **H301** | Toxic if swallowed. |
| **H311** | Toxic in contact with skin. |
| **H332** | Harmful if inhaled. |
| **H317** | May cause an allergic skin reaction. |
| **H351** | Suspected of causing cancer. |
| **H410** | Very toxic to aquatic life with long lasting effects. |

### Precautionary statement(s) Prevention

| | |
|---|---|
| **P201** | Obtain special instructions before use. |
| **P270** | Do not eat, drink or smoke when using this product. |
| **P271** | Use only outdoors or in a well-ventilated area. |
| **P280** | Wear protective gloves/protective clothing/eye protection/face protection. |
| **P281** | Use personal protective equipment as required. |
| **P261** | Avoid breathing dust/fumes. |
| **P273** | Avoid release to the environment. |
| **P272** | Contaminated work clothing should not be allowed out of the workplace. |

### Precautionary statement(s) Response

| | |
|---|---|
| **P301+P310** | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| **P308+P313** | IF exposed or concerned: Get medical advice/attention. |
| **P321** | Specific treatment (see advice on this label). |
| **P322** | Specific measures (see advice on this label). |
| **P330** | Rinse mouth. |
| **P363** | Wash contaminated clothing before reuse. |
| **P302+P352** | IF ON SKIN: Wash with plenty of water. |
| **P312** | Call a POISON CENTER or doctor/physician if you feel unwell. |
| **P333+P313** | If skin irritation or rash occurs: Get medical advice/attention. |
| **P391** | Collect spillage. |
| **P304+P340** | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |

### Precautionary statement(s) Storage

| | |
|---|---|
| **P405** | Store locked up. |

### Precautionary statement(s) Disposal

| | |
|---|---|
| **P501** | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |

## SECTION 3 Composition / information on ingredients

### Substances

See section below for composition of Mixtures

### Mixtures

| CAS No | %[weight] | Name |
|---|---|---|
| 23103-98-2 | 50 | pirimicarb |
| Not Available | | (500g/kg) |
| Not Available | balance | Ingredients determined not to be hazardous |

## SECTION 4 First aid measures

### Description of first aid measures

| | |
|---|---|
| **Eye Contact** | If this product comes in contact with the eyes:<br>- Immediately hold eyelids apart and flush the eye continuously with running water.<br>- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.<br>- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.<br>- Transport to hospital or doctor without delay.<br>- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| **Skin Contact** | If product comes in contact with skin:<br>- Contact a Poisons Information Centre or a doctor.<br>- **DO NOT** allow clothing wet with product to remain in contact with skin, strip all contaminated clothing including boots.<br>- Quickly wash affected areas vigorously with soap and water.<br>- **DO NOT** give anything by mouth to a patient showing signs of narcosis, i.e. losing consciousness.<br>- Give atropine if instructed.<br>- **DO NOT** delay, get to a doctor or hospital quickly. |
| **Inhalation** | - If spray mist, vapour are inhaled, remove from contaminated area.<br>- Contact a Poisons Information Centre or a doctor at once.<br>- Lay patient down in a clean area and strip any clothing wet with spray.<br>- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.<br>- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.<br>- **DO NOT** give anything by mouth to a patient showing signs of narcosis, i.e. losing consciousness.<br>- Give atropine if instructed.<br>- Get to doctor or hospital quickly. |
| **Ingestion** | If swallowed:<br>- Contact a Poisons Information Centre or a doctor at once. |

**Continued...**

| | |
|---|---|
| | - If swallowed, activated charcoal may be advised.<br>- Give atropine if instructed.<br>- **REFER FOR MEDICAL ATTENTION WITHOUT DELAY.**<br>- In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.<br>- If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided.<br>- Further action will be the responsibility of the medical specialist.<br>- If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. |

### Indication of any immediate medical attention and special treatment needed

Following acute or short term repeated exposures to carbamates:

- Carbamylation of acetylcholinesterase produces symptoms of muscarinic and nicotinic poisoning. Clinical effects disappear within 24 hours following spontaneous, in vivo, hydrolysis of the complex. Symptoms develop within 15 minutes to 2 hours.
- Access the adequacy of the airway and ventilation and use oxygen, suction, intubation, artificial ventilation, intravenous lines and cardiac monitors as needed.
- Usual methods of decontamination (Ipecac / lavage / charcoal / cathartics) may be used when the patient presents within 2-4 hours after exposure. When Ipecac Syrup is used the patient must be observed closely to prevent aspiration.
- Atropine is the antidote of choice. Pralidoxime [and other oximes] usually is unnecessary and, in any case, may reduce the effectiveness of atropine. [Mild cases should be given 1 to 2 mg intramuscularly every 10 minutes until full atropinization has been achieved and repeated thereafter whenever symptoms reappear. Severe cases should given 2 to 4 mg intramuscularly every 10 minutes until fully atropinized, then every 30 to 60 minutes to maintain the effect for at least 12 hours - Incitec] [Ellenhorn and Barceloux: Medical Toxicology]

## SECTION 5 Firefighting measures

### Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

### Special hazards arising from the substrate or mixture

| | |
|---|---|
| **Fire Incompatibility** | - Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |

### Advice for firefighters

| | |
|---|---|
| **Fire Fighting** | - Alert Fire Brigade and tell them location and nature of hazard.<br>- Wear full body protective clothing with breathing apparatus.<br>- Prevent, by any means available, spillage from entering drains or water course.<br>- Consider evacuation (or protect in place).<br>- Fight fire from a safe distance, with adequate cover.<br>- If safe, switch off electrical equipment until vapour fire hazard removed.<br>- Use water delivered as a fine spray to control fire and cool adjacent area.<br>- Avoid spraying water onto liquid pools.<br>- **DO NOT** approach containers suspected to be hot.<br>- Cool fire exposed containers with water spray from a protected location.<br>- If safe to do so, remove containers from path of fire.<br>- Equipment should be thoroughly decontaminated after use.<br>- If containment of runoff is not possible, consider allowing fire to burn-out. Use of water may present a significant pollution hazard. |
| **Fire/Explosion Hazard** | - Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.<br>- Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).<br>- Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.<br>- In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC).<br>- When processed with flammable liquids/vapors/mists,ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the Minimum Ignition Energy (the minimum amount of energy required to ignite dust clouds - MIE) will be lower than the pure dust in air mixture. The Lower Explosive Limit (LEL) of the vapour/dust mixture will be lower than the individual LELs for the vapors/mists or dusts.<br>- A dust explosion may release of large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people.<br>- Usually the initial or primary explosion takes place in a confined space such as plant or machinery, and can be of sufficient force to damage or rupture the plant. If the shock wave from the primary explosion enters the surrounding area, it will disturb any settled dust layers, forming a second dust cloud, and often initiate a much larger secondary explosion. All large scale explosions have resulted from chain reactions of this type.<br>- Dry dust can be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport.<br>- Build-up of electrostatic charge may be prevented by bonding and grounding.<br>- Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.<br>- All movable parts coming in contact with this material should have a speed of less than 1-meter/sec.<br>- A sudden release of statically charged materials from storage or process equipment, particularly at elevated temperatures and/ or pressure, may result in ignition especially in the absence of an apparent ignition source.<br>- One important effect of the particulate nature of powders is that the surface area and surface structure (and often moisture content) can vary widely from sample to sample, depending of how the powder was manufactured and handled; this means that it is virtually impossible to use flammability data published in the literature for dusts (in contrast to that published for gases and vapours).<br>- Autoignition temperatures are often quoted for dust clouds (minimum ignition temperature (MIT)) and dust layers (layer ignition temperature (LIT)); LIT generally falls as the thickness of the layer increases. |

**Continued...**

| | |
|---|---|
| | Combustion products include:<br>carbon monoxide (CO)<br>carbon dioxide (CO2)<br>nitrogen oxides (NOx)<br>other pyrolysis products typical of burning organic material.<br>May emit poisonous fumes. |
| **HAZCHEM** | 2X |

## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

| | |
|---|---|
| **Minor Spills** | ▸ Clean up waste regularly and abnormal spills immediately.<br>▸ Avoid breathing dust and contact with skin and eyes.<br>▸ Wear protective clothing, gloves, safety glasses and dust respirator.<br>▸ Use dry clean up procedures and avoid generating dust.<br>▸ Vacuum up or sweep up. **NOTE:** Vacuum cleaner must be fitted with an exhaust micro filter (HEPA type) (consider explosion-proof machines designed to be grounded during storage and use).<br>▸ Dampen with water to prevent dusting before sweeping.<br>▸ Place in suitable containers for disposal. |
| **Major Spills** | ▸ Clear area of personnel and move upwind.<br>▸ Alert Fire Brigade and tell them location and nature of hazard.<br>▸ Wear full body protective clothing with breathing apparatus.<br>▸ Prevent, by any means available, spillage from entering drains or water course.<br>▸ Stop leak if safe to do so.<br>▸ Contain spill with sand, earth or vermiculite.<br>▸ Collect recoverable product into labelled containers for recycling.<br>▸ Neutralise/decontaminate residue (see Section 13 for specific agent).<br>▸ Collect solid residues and seal in labelled drums for disposal.<br>▸ Wash area and prevent runoff into drains.<br>▸ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.<br>▸ If contamination of drains or waterways occurs, advise emergency services. |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

### Precautions for safe handling

| | |
|---|---|
| **Safe handling** | ▸ Avoid all personal contact, including inhalation.<br>▸ Wear protective clothing when risk of exposure occurs.<br>▸ Use in a well-ventilated area.<br>▸ Prevent concentration in hollows and sumps.<br>▸ **DO NOT** enter confined spaces until atmosphere has been checked.<br>▸ **DO NOT** allow material to contact humans, exposed food or food utensils.<br>▸ Avoid contact with incompatible materials.<br>▸ When handling, **DO NOT** eat, drink or smoke.<br>▸ Keep containers securely sealed when not in use.<br>▸ Avoid physical damage to containers.<br>▸ Always wash hands with soap and water after handling.<br>▸ Work clothes should be laundered separately. Launder contaminated clothing before re-use.<br>▸ Use good occupational work practice.<br>▸ Observe manufacturer's storage and handling recommendations contained within this SDS.<br>▸ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.<br>▸ Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions)<br>▸ Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.<br>▸ Establish good housekeeping practices.<br>▸ Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.<br>▸ Use continuous suction at points of dust generation to capture and minimise the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimise the probability of a "secondary" explosion. According to NFPA Standard 654, dust layers 1/32 in.(0.8 mm) thick can be sufficient to warrant immediate cleaning of the area.<br>▸ Do not use air hoses for cleaning.<br>▸ Minimise dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Vacuums with explosion-proof motors should be used.<br>▸ Control sources of static electricity. Dusts or their packages may accumulate static charges, and static discharge can be a source of ignition.<br>▸ Solids handling systems must be designed in accordance with applicable standards (e.g. NFPA including 654 and 77) and other national guidance.<br>▸ Do not empty directly into flammable solvents or in the presence of flammable vapors.<br>▸ The operator, the packaging container and all equipment must be grounded with electrical bonding and grounding systems. Plastic bags and plastics cannot be grounded, and antistatic bags do not completely protect against development of static charges.<br>Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source.<br>▸ Do NOT cut, drill, grind or weld such containers.<br>▸ In addition ensure such activity is not performed near full, partially empty or empty containers without appropriate workplace safety |

**Continued...**

| | |
|---|---|
| | authorisation or permit. |
| **Other information** | ▸ Store in original containers.<br>▸ Keep containers securely sealed.<br>▸ Store in a cool, dry, well-ventilated area.<br>▸ Store away from incompatible materials and foodstuff containers.<br>▸ Protect containers against physical damage and check regularly for leaks.<br>▸ Observe manufacturer's storage and handling recommendations contained within this SDS. |

### Conditions for safe storage, including any incompatibilities

| | |
|---|---|
| **Suitable container** | ▸ Lined metal can, lined metal pail/ can.<br>▸ Plastic pail.<br>▸ Polyliner drum.<br>▸ Packing as recommended by manufacturer.<br>▸ Check all containers are clearly labelled and free from leaks.<br>▸ Glass container is suitable for laboratory quantities<br>For low viscosity materials<br>▸ Drums and jerricans must be of the non-removable head type.<br>▸ Where a can is to be used as an inner package, the can must have a screwed enclosure.<br>For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.):<br>▸ Removable head packaging;<br>▸ Cans with friction closures and<br>▸ low pressure tubes and cartridges<br>may be used.<br>-<br>Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages *.<br>-<br>In addition, where inner packagings are glass and contain liquids of packing group I and II there must be sufficient inert absorbent to absorb any spillage *.<br>-<br>* unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic. |
| **Storage incompatibility** | ▸ Carbamates are incompatible with strong acids and bases, and especially incompatible with strong reducing agents such as hydrides.<br>▸ Flammable gaseous hydrogen is produced by the combination of active metals or nitrides with carbamates.<br>▸ Strongly oxidising acids, peroxides, and hydroperoxides are incompatible with carbamates. |

## SECTION 8 Exposure controls / personal protection

### Control parameters

**Occupational Exposure Limits (OEL)**

**INGREDIENT DATA**

Not Available

**Emergency Limits**

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|---|---|---|---|---|
| OzCrop Pirimicarb 500 WG Aphicide | Not Available | Not Available | Not Available | Not Available |

| Ingredient | Original IDLH | Revised IDLH |
|---|---|---|
| pirimicarb | Not Available | Not Available |

**Occupational Exposure Banding**

| Ingredient | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|---|---|---|
| pirimicarb | E | ≤ 0.01 mg/m³ |
| ***Notes:*** | *Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.* | |

### Exposure controls

| | |
|---|---|
| **Appropriate engineering controls** | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.<br>Employers may need to use multiple types of controls to prevent employee overexposure.<br><br>▸ Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.<br>▸ Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.<br>▸ If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:<br>(a): particle dust respirators, if necessary, combined with an absorption cartridge;<br>(b): filter respirators with absorption cartridge or canister of the right type;<br>(c): fresh-air hoods or masks<br>▸ Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.<br>▸ Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.<br>Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently remove the contaminant. |

**Continued...**

| Type of Contaminant: | Air Speed: |
|---|---|
| direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | 1-2.5 m/s (200-500 f/min.) |
| grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion). | 2.5-10 m/s (500-2000 f/min.) |

Within each range the appropriate value depends on:

| Lower end of the range | Upper end of the range |
|---|---|
| 1: Room air currents minimal or favourable to capture | 1: Disturbing room air currents |
| 2: Contaminants of low toxicity or of nuisance value only | 2: Contaminants of high toxicity |
| 3: Intermittent, low production. | 3: High production, heavy use |
| 4: Large hood or large air mass in motion | 4: Small hood-local control only |

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

**Personal protection**

**Eye and face protection**

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

**Skin protection**

See Hand protection below

**Hands/feet protection**

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber

**NOTE:**

- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.
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 moisturiser is recommended.
Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:
· frequency and duration of contact,
· chemical resistance of glove material,
· glove thickness and
· dexterity
Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).
· When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
· When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
· Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.
· Contaminated gloves should be replaced.
As defined in ASTM F-739-96 in any application, gloves are rated as:
· Excellent when breakthrough time > 480 min
· Good when breakthrough time > 20 min
· Fair when breakthrough time < 20 min
· Poor when glove material degrades
For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.
It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.
Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.
Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:
· Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
· Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential
Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

**Body protection**

See Other protection below

Continued...

| | |
|---|---|
| **Other protection** | - Overalls.<br>- Eyewash unit.<br>- Barrier cream.<br>- Skin cleansing cream.<br>- Ensure that there is a supply of atropine tablets on hand<br>- Ensure all employees have been informed of symptoms of cholinesterase poisoning and that the use of atropine in first aid is understood . |

### Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Required minimum protection factor | Maximum gas/vapour concentration present in air p.p.m. (by volume) | Half-face Respirator | Full-Face Respirator |
|---|---|---|---|
| up to 10 | 1000 | -AUS / Class1 P2 | - |
| up to 50 | 1000 | - | -AUS / Class 1 P2 |
| up to 50 | 5000 | Airline * | - |
| up to 100 | 5000 | - | -2 P2 |
| up to 100 | 10000 | - | -3 P2 |
| 100+ | | | Airline** |

* - Continuous Flow ** - Continuous-flow or positive pressure demand
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Use approved positive flow mask if significant quantities of dust becomes airborne.
- Try to avoid creating dust conditions.

## SECTION 9 Physical and chemical properties

### Information on basic physical and chemical properties

| | |
|---|---|
| **Appearance** | Off-white granular solid with no odour; partially soluble in water. |

| | | | |
|---|---|---|---|
| **Physical state** | Divided Solid | **Relative density (Water = 1)** | 0.61 (bulk) |
| **Odour** | Not Available | **Partition coefficient n-octanol / water** | Not Available |
| **Odour threshold** | Not Available | **Auto-ignition temperature (°C)** | Not Available |
| **pH (as supplied)** | Not Applicable | **Decomposition temperature** | Not Available |
| **Melting point / freezing point (°C)** | *92 (pirimicarb) | **Viscosity (cSt)** | Not Applicable |
| **Initial boiling point and boiling range (°C)** | Not Available | **Molecular weight (g/mol)** | Not Applicable |
| **Flash point (°C)** | Not Available | **Taste** | Not Available |
| **Evaporation rate** | Not Available | **Explosive properties** | Not Available |
| **Flammability** | Not Available | **Oxidising properties** | Not Available |
| **Upper Explosive Limit (%)** | Not Available | **Surface Tension (dyn/cm or mN/m)** | Not Applicable |
| **Lower Explosive Limit (%)** | Not Available | **Volatile Component (%vol)** | Negligible |
| **Vapour pressure (kPa)** | Negligible | **Gas group** | Not Available |
| **Solubility in water** | Partly miscible | **pH as a solution (1%)** | Not Available |
| **Vapour density (Air = 1)** | Not Available | **VOC g/L** | Not Available |

## SECTION 10 Stability and reactivity

| | |
|---|---|
| **Reactivity** | See section 7 |
| **Chemical stability** | - Unstable in the presence of incompatible materials.<br>- Product is considered stable.<br>- Hazardous polymerisation will not occur. |
| **Possibility of hazardous reactions** | See section 7 |
| **Conditions to avoid** | See section 7 |
| **Incompatible materials** | See section 7 |
| **Hazardous decomposition products** | See section 5 |

**Continued...**

## SECTION 11 Toxicological information

### Information on toxicological effects

| | |
|---|---|
| **Inhaled** | Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful.<br>Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.<br>If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result<br>in excessive exposures.<br><br>Poisoning due to cholinesterase inhibitors causes symptoms such as increased blood flow to the nose, watery discharge, chest discomfort, shortness of breath and wheezing. Other symptoms include increased production of tears, nausea and vomiting, diarrhoea, stomach pain, involuntary passing of urine and stools, chest pain, breathing difficulty, low blood pressure, irregular heartbeat, loss of reflexes, twitching, visual disturbances, altered pupil size, convulsions, lung congestion, coma and heart failure.<br>Symptoms of carbamate poisoning are similar to that of organophosphate poisoning, however, recovery from carbamate poisoning is quicker and generally less likely to be cause death. |
| **Ingestion** | Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.<br>Ingestion may produce nausea, vomiting, depressed appetite, abdominal cramps, and diarrhoea. |
| **Skin Contact** | Skin contact with the material may produce toxic effects; systemic effects may result following absorption.<br>There may be sweating and muscle twitches at site of contact. Reaction may be delayed by hours.<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. |
| **Eye** | Limited evidence or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals. Prolonged eye contact may cause inflammation characterised by a temporary redness of the conjunctiva (similar to windburn).<br>Direct eye contact can produce tears, eyelid twitches, pupil contraction, loss of focus, and blurred or dimmed vision. Dilation of the pupils occasionally occurs. |
| **Chronic** | There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.<br>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.<br>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.<br>Repeated or prolonged exposures to cholinesterase inhibitors produce symptoms similar to acute effects. In addition workers exposed repeatedly to these substances may exhibit impaired memory and loss of concentration, severe depression and acute psychosis, irritability, confusion, apathy, emotional liability, speech difficulties, headache, spatial disorientation, delayed reaction times, sleepwalking, drowsiness or insomnia.<br>Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung. |

| | TOXICITY | IRRITATION |
|---|---|---|
| **OzCrop Pirimicarb 500 WG Aphicide** | Not Available | Not Available |

| | TOXICITY | IRRITATION |
|---|---|---|
| **pirimicarb** | 17.2 mg/kg[2] | Eye (rabbit): mild |
| | dermal (rat) LD50: >500 mg/kg[2] | Eye: no adverse effect observed (not irritating)[1] |
| | Inhalation (rat) LC50: 0.45 mg/l/6h*d[2] | Skin (rabbit): non-irritating * |
| | Oral (chicken) LD50: 25 mg/kg[2] | Skin: no adverse effect observed (not irritating)[1] |
| | Oral (dog) LD50: 100200 mg/kg[2] | |
| | Oral (mouse) LD50: 107 mg/kg[2] | |
| | Oral (rat) LD50: 100 mg/kg[2] | |
| | Oral (rat) LD50: 68 mg/kg[2] | |

| | |
|---|---|
| ***Legend:*** | *1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS.  Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances* |

| | |
|---|---|
| **PIRIMICARB** | Oral (dog) LD50: 100-200 mg/kg * NOEL (None) 2: y for dogs, 1.8 mg/kg daily;<br>Carbamate pesticides are less dangerous than organophosphorus pesticides. It requires higher dose to produce toxicity or mortality. However, its toxicity via skin contact is low to moderate. Its rapid metabolism causes acute toxic effect but subsequent rapid recovery. It may cause skin and eye irritation, increased pigmentation, sperm abnormalities, sensitization, cancer, mutations and genetic and foetal defects. It is easily absorbed through the skin, mucous membranes, airway and digestive tract. It can cause changes to the function of the blood-making system and the liver and kidney, at higher concentrations it can cause degeneration of the liver, kidney and testes. Its metabolites are detectable in urine.<br>The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.<br>**NOTE:** Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.<br>***[ * The Pesticides Manual, Incorporating The Agrochemicals Handbook, 10th Edition, Editor Clive Tomlin, 1994, British Crop Protection Council]***<br>ADI 0.02 mg/kg b.w. * Toxicity Class WHO II;EPA II * for rats 250 mg/kg diet (12.5 mg/kg daily) * Not carcinogenic; no adverse reproductive effects. * Not a skin sensitiser in guinea pigs. * |

| | | | |
|---|---|---|---|
| **Acute Toxicity** | ✓ | **Carcinogenicity** | ✓ |
| **Skin Irritation/Corrosion** | ✗ | **Reproductivity** | ✗ |
| **Serious Eye Damage/Irritation** | ✗ | **STOT - Single Exposure** | ✗ |
| **Respiratory or Skin sensitisation** | ✓ | **STOT - Repeated Exposure** | ✗ |
| **Mutagenicity** | ✗ | **Aspiration Hazard** | ✗ |

**Continued...**

***Legend:*** ✗ *– Data either not available or does not fill the criteria for classification*
✓ *– Data available to make classification*

## SECTION 12 Ecological information

### Toxicity

| | Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|---|
| **OzCrop Pirimicarb 500 WG Aphicide** | Not Available | Not Available | Not Available | Not Available | Not Available |
| **pirimicarb** | EC50 | 48 | Crustacea | 0.016mg/L | 5 |
| ***Legend:*** | *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data* | | | | |

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
**DO NOT** discharge into sewer or waterways.

### Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|---|---|---|
| pirimicarb | HIGH | HIGH |

### Bioaccumulative potential

| Ingredient | Bioaccumulation |
|---|---|
| pirimicarb | LOW (LogKOW = 2.2662) |

### Mobility in soil

| Ingredient | Mobility |
|---|---|
| pirimicarb | LOW (KOC = 305.5) |

## SECTION 13 Disposal considerations

### Waste treatment methods

| | |
|---|---|
| **Product / Packaging disposal** | ▸ Containers may still present a chemical hazard/ danger when empty.<br>▸ Return to supplier for reuse/ recycling if possible.<br>Otherwise:<br>▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.<br>▸ Where possible retain label warnings and SDS and observe all notices pertaining to the product.<br>▸ Consult manufacturer for recycling options.<br>▸ Consult Land Waste Management Authority for disposal options.<br>▸ For disposal of residue:<br>▸ Add with stirring to strongly alkaline solution of calcium hypochlorite. Let stand for 24 hours and then route cyanate to sewage treatment plant.<br>OR<br>▸ Mix with flammable solvent and spray into incinerator equipped with afterburner and scrubber.<br>▸ Decontaminate empty containers.<br>▸ Return containers to drum reconditioner or recycler.<br>OR<br>▸ Puncture containers to prevent reuse and bury at an authorised landfill.<br>▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains.<br>▸ It may be necessary to collect all wash water for treatment before disposal.<br>▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.<br>▸ Where in doubt contact the responsible authority. |

## SECTION 14 Transport information

### Labels Required

| | |
|---|---|
| |  |
| **Marine Pollutant** |  |
| **HAZCHEM** | 2X |

### Land transport (ADG)

Continued...

| | |
|---|---|
| **UN number** | 2757 |
| **UN proper shipping name** | CARBAMATE PESTICIDE, SOLID, TOXIC (contains pirimicarb) |
| **Transport hazard class(es)** | Class: 6.1<br>Subrisk: Not Applicable |
| **Packing group** | III |
| **Environmental hazard** | Environmentally hazardous |
| **Special precautions for user** | Special provisions: 61 223 274<br>Limited quantity: 5 kg |

### Air transport (ICAO-IATA / DGR)

| | |
|---|---|
| **UN number** | 2757 |
| **UN proper shipping name** | Carbamate pesticide, solid, toxic * (contains pirimicarb) |
| **Transport hazard class(es)** | ICAO/IATA Class: 6.1<br>ICAO / IATA Subrisk: Not Applicable<br>ERG Code: 6L |
| **Packing group** | III |
| **Environmental hazard** | Environmentally hazardous |
| **Special precautions for user** | Special provisions: A3 A5<br>Cargo Only Packing Instructions: 677<br>Cargo Only Maximum Qty / Pack: 200 kg<br>Passenger and Cargo Packing Instructions: 670<br>Passenger and Cargo Maximum Qty / Pack: 100 kg<br>Passenger and Cargo Limited Quantity Packing Instructions: Y645<br>Passenger and Cargo Limited Maximum Qty / Pack: 10 kg |

### Sea transport (IMDG-Code / GGVSee)

| | |
|---|---|
| **UN number** | 2757 |
| **UN proper shipping name** | CARBAMATE PESTICIDE, SOLID, TOXIC (contains pirimicarb) |
| **Transport hazard class(es)** | IMDG Class: 6.1<br>IMDG Subrisk: Not Applicable |
| **Packing group** | III |
| **Environmental hazard** | Marine Pollutant |
| **Special precautions for user** | EMS Number: F-A , S-A<br>Special provisions: 61 223 274<br>Limited Quantities: 5 kg |

### Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

## SECTION 15 Regulatory information

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

**pirimicarb is found on the following regulatory lists**

- Australia Chemicals with non-industrial uses removed from the Australian Inventory of Chemical Substances (old Inventory)
- Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6
- Chemical Footprint Project - Chemicals of High Concern List

### National Inventory Status

| National Inventory | Status |
|---|---|
| Australia - AIIC | No (pirimicarb) |
| Australia Non-Industrial Use | Yes |
| Canada - DSL | No (pirimicarb) |
| Canada - NDSL | No (pirimicarb) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | Yes |

Continued...

| National Inventory | Status |
|---|---|
| Japan - ENCS | No (pirimicarb) |
| Korea - KECI | Yes |
| New Zealand - NZIoC | Yes |
| Philippines - PICCS | No (pirimicarb) |
| USA - TSCA | No (pirimicarb) |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | Yes |
| Vietnam - NCI | Yes |
| Russia - ARIPS | Yes |
| ***Legend:*** | *Yes = All CAS declared ingredients are on the inventory*<br>*No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)* |

## SECTION 16 Other information

| | |
|---|---|
| **Revision Date** | 01/11/2019 |
| **Initial Date** | 25/06/2018 |

### SDS Version Summary

| Version | Issue Date | Sections Updated |
|---|---|---|
| 2.1.1.1 | 25/06/2018 | Acute Health (skin) |
| 4.1.1.1 | 01/11/2019 | One-off system update. NOTE: This may or may not change the GHS classification |

### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### Definitions and abbreviations

PC－TWA: Permissible Concentration-Time Weighted Average
PC－STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

end of SDS