SAFETY DATA SHEET
Piperonyl Butoxide TG
According to Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, February 2016

SECTION 1: Identification: Product identifier and chemical identity

Product identifier
Product name
Piperonyl Butoxide TG

Relevant identified uses of the substance or mixture and uses advised against
Application
Insecticide synergist

Uses advised against
No specific uses advised against are identified.

Details of the supplier of the safety data sheet
Supplier
www.sumitomo-chem.com.au
Sumitomo Chemical Australia Pty Ltd
Level 5, 51 Rawson Street,
EPPING, NSW 2121
(02) 8752 9000
(02) 8752 9099
Reception@sumitomo-chem.com.au

Emergency telephone number
Emergency telephone
1800 024 973 (Australia) 0800 243 6225 (New Zealand)

SECTION 2: Hazard(s) identification

Classification of the substance or mixture
Physical hazards
Not Classified

Health hazards
Not Classified

Environmental hazards
Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

Label elements

Pictogram

Signal word
Warning

Hazard statements
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P273 Avoid release to the environment.
P391 Collect spillage.
P501 Dispose of contents/ container in accordance with national regulations.

Other hazards
This product does not contain any substances classified as PBT or vPvB.
Piperonyl Butoxide TG

SECTION 3: Composition and information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piperonyl Butoxide</td>
<td>min. 94%</td>
</tr>
<tr>
<td>CAS number: 51-03-6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, non-hazardous ingredients</td>
<td>0 - 6%</td>
</tr>
<tr>
<td>CAS number: —</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

Description of first aid measures

General information
If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

Inhalation
Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.

Ingestion
Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

Skin Contact
Rinse with water.

Eye contact
Rinse with water. Get medical attention if any discomfort continues.

Protection of first aiders
First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
No specific symptoms known.

Ingestion
No specific symptoms known.

Skin contact
No specific symptoms known.

Eye contact
No specific symptoms known. May be slightly irritating to eyes.

Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media
The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards
Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products
Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
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Advice for firefighters

Protective actions during firefighting
Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to Australia/New Zealand Standards AS/NZS 4967 (for clothing) AS/NZS 1801 (for helmets), AS/NZS 4821 (for protective boots), AS/NZS 1801 (for protective gloves) will provide a basic level of protection for chemical incidents.

Hazchem Code
3X

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk.

Environmental precautions
Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

Methods and material for containment and cleaning up

Methods for cleaning up
Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Small Spillages: Collect spillage. Large Spillages: Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

Reference to other sections

Reference to other sections
For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage, including how the chemical may be safely used

Precautions for safe handling

Usage precautions
Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene
Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions
Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.
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Storage class
Miscellaneous hazardous material storage.

Specific end use(s)
The identified uses for this product are detailed in Section 1

SECTION 8: Exposure controls and personal protection

Control parameters
Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection
Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection
No specific hand protection recommended. Avoid contact with skin.

Other skin and body protection
Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures
Wash hands thoroughly after handling. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection
Ensure all respiratory protective equipment is suitable for its intended use and complies with Australia/New Zealand Standard AS/NZS 1716. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Full face mask respirators with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Half mask and quarter mask respirators with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716.

Environmental exposure controls
Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance Clear liquid.

Colour Pale yellow

Odour Mild. Sweetish.

Initial boiling point and range >300°C

Flash point > 93.3°C TCC (Tag closed cup).

Vapour pressure <1 x 10⁻⁷ mm Hg @ 25°C

Relative density 1.059 @ 20°C

Solubility(ies) Partially miscible in water

Partition coefficient Pow: 4.7
**Piperonyl Butoxide TG**

**Viscosity**
34 cP, s @ 22°C

**Refractive index**
1.4990

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**SECTION 10: Stability and reactivity**

**Reactivity**
There are no known reactivity hazards associated with this product.

**Stability**
Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

**Possibility of hazardous reactions**
No potentially hazardous reactions known.

**Conditions to avoid**
There are no known conditions that are likely to result in a hazardous situation.

**Materials to avoid**
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

**Hazardous decomposition products**
Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

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**SECTION 11: Toxicological information**

**Information on toxicological effects**

**Acute toxicity - oral**

Notes (oral LD₅₀)

LD₅₀ = 4570 mg/kg, , Rat

**Acute toxicity - dermal**

Notes (dermal LD₅₀)

LD₅₀ >2000 mg/kg, , Rat

**Acute toxicity - inhalation**

Notes (inhalation LC₅₀)

LC₅₀ >5.9 mg/l, , Rat, (4 h)

**Skin corrosion/irritation**

Animal data

Not irritating. (Rabbit)

**Serious eye damage/irritation**

Non-irritating (Rabbit)

**Respiratory sensitisation**

Based on available data the classification criteria are not met.

**Skin sensitisation**

Not sensitising. (Guinea pig)

**Germ cell mutagenicity**

Based on available data the classification criteria are not met.

**Carcinogenicity**

Based on available data the classification criteria are not met.

**IARC carcinogenicity**

None of the ingredients are listed or exempt.

**Reproductive toxicity**

Based on available data the classification criteria are not met.
Piperonyl Butoxide TG

Reproductive toxicity - development
Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure
STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure
STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard
Aspiration hazard Based on available data the classification criteria are not met.

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
No specific symptoms known.

Ingestion
No specific symptoms known.

Skin Contact
No specific symptoms known.

Eye contact
No specific symptoms known.

Route of entry
Ingestion Inhalation Skin and/or eye contact

Target Organs
No specific target organs known.

SECTION 12: Ecological Information

Toxicity
Aquatic Acute 1 - H400 Very toxic to aquatic life. Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

Acute toxicity - fish
LC₅₀, 96 hours: 3.94 mg/l, Cyprinodon variegatus (Sheepshead minnow)

Acute toxicity - aquatic invertebrates
LC₅₀, 48 hours: <1.0 mg/l, Daphnia magna

Acute toxicity - terrestrial
LD₅₀, : 25 µg/bee, Apis Mellifera (Honeybee)

Chronic toxicity - aquatic invertebrates
NOEC, 36 days: 0.32 mg/l, Mysid shrimp

Persistence and degradability
The degradability of the product is not known.

Biaccumulative potential
No data available on bioaccumulation.

Partition coefficient
Pow: 4.7

Mobility in soil
No data available.

Mobility
No data available.

Results of PBT and vPvB assessment
Other adverse effects
None known.

SECTION 13: Disposal considerations

Waste treatment methods
Piperonyl Butoxide TG

General information
The generation of waste should be minimised or avoided wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods
Triple or preferably pressure rinse containers before disposal. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

SECTION 14: Transport information

General
Not a dangerous good according to ADG code 7

UN number
3082

UN proper shipping name
Insecticides, Insect or Animal Repellent, Liquid, N.O.S.

Transport hazard class(es)
9

Packing group
III

Environmental hazards

Special precautions for user
Hazchem Code
3X

SECTION 15: Regulatory information

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

Inventories
Australia - AICS
Not applicable

SECTION 16: Any other relevant information

Training advice
Only trained personnel should use this material.

Revision date
29/09/2016

Revision
2

Supersedes date
29/09/2016

SDS No.
4655

Hazard statements in full
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company’s knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.