

MATERIAL SAFETY DATA SHEET OF PYRIMETHANIL 600G/L SC

SECTION 1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product name: Pyrimethanil 600 g/L SC

Recommended use: Agricultural herbicide

Formulation: Suspending concentrate (SC)

Supplier: Shanghai Bosman Industrial Co., Ltd

Address: No. 1611, North Sichuan Road, Hongkou, Shanghai R.P. China

Tel: + 86 21 63065878 **Fax:** + 86 21 63065878

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Australian GHS Regulation

Chronic aquatic toxicity: Category 2

H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements No hazard label for supply/use required.

2.3 Other hazards No other hazards known.

SECTION 3. COMPOSITION/INFOON INGREDIENTS

Chemical nature: Pyrimethanil 600g/l Suspension concentrate (=flowable concentrate)(SC)

INGREDIENT	CAS NO	PROPORTION(g/l, w/v)
Pyrimethanil	53112-28-0	600g/l
Other ingredients	--	Up to 1L

Other ingredients determined not to be hazardous.

SECTION 4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.

4.1 Description of first aid measures

General advice: Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.

Skin contact Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delaye

Symptoms: No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media:

Suitable: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable: High volume water jet.

5.2: Special hazards arising from the substance or mixture

In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x)

5.3: Advice for firefighters:

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

Further information: Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses. Evacuate personnel to safe areas. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.

Hazchem Code: 3Z

SECTION 6. ACCIDENT RELEASE MEASURES

6.1 Personal precautions: Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment. Keep unauthorized people away.

6.2: Environmental precautions: If the product contaminates rivers and lakes or drains inform respective authorities. Do not allow to get into surface water, drains and ground water.

6.3 Methods for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

6.4: Reference to other sections: Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling: Use only in area provided with appropriate exhaust ventilation.

Hygiene measures: Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2: Conditions for safe storage including any incompatibilities:

Requirements for storage areas and containers: Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Store at room temperature. Protect from frost.

Advice on common storage: Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure parameters:

Components	CAS No.	Control parameters	Updated	Basis
Pyrimethanil	53112-28-0	5.6 mg/m ³ (TWA)	Dec, 2011	OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls:

Respiratory protection is not required under anticipated circumstances of exposure. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

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. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material: Nitrile rubber

Rate of permeability: > 480 min

Glove thickness : > 0.4 mm

Protective index: Class 6

Directive: Protective gloves complying with EN 374.

Eye protection: Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection: Wear standard coveralls and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

General protective measures

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.

Engineering Controls

Advice on safe handling: Use only in area provided with appropriate exhaust ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form: suspension

Colour: white to beige

Odour: almost odourless

Ph: 4.5 - 7.5 at 100 % (23 °C)

Boiling point/boiling range: 100 °C

Flash point: No flash point - Determination conducted up to the boiling point.

Density: ca. 1.10 g/cm³ at 20 °C

Water solubility: dispersible

Partition coefficient octanol/water: Pyrimethanil: log Pow: 2.84

Viscosity, dynamic: 340 - 500 mPa.s at 20 °C Velocity gradient 20 /s

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition: Stable under normal conditions.

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions.

10.4 Conditions to avoid: Elevated temperatures freezing

10.5 Incompatible materials: No data available

10.6 Hazardous: decomposition products

Thermal decomposition can lead to release of: Carbon oxides, Nitrogen oxides (NO_x)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity: LD₅₀ (Rat) 4,505 mg/kg

Acute inhalation toxicity: LC₅₀ (Rat) > 4.41 mg/l Highest attainable concentration.

Acute dermal toxicity: LD₅₀ (Rat) > 5,000 mg/kg

Skin irritation: No skin irritation (Rabbit)

Eye irritation: Slight irritant effect - does not require labelling. (Rabbit)

Sensitisation: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test

Assessment mutagenicity

Pyrimethanil was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Pyrimethanil was not carcinogenic in lifetime feeding studies in mice. Pyrimethanil caused at high dose levels an increased incidence of tumours in rats in the following organ(s): Thyroid. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

Assessment toxicity to reproduction

Pyrimethanil did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Pyrimethanil did not cause developmental toxicity in rats and rabbits.

Assessment STOT Specific target organ toxicity – single exposure

Pyrimethanil: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Pyrimethanil did not cause any significant specific adverse effects or target organ toxicity in subchronic toxicity studies.

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

Information on likely routes of exposure

May be harmful if inhaled. May cause skin irritation.

May cause eye irritation.

May be harmful if swallowed.

Early onset symptoms related to exposure: Refer to Section 4

Delayed health effects from exposure: Refer to Section 11

Exposure levels and health effects: Refer to Section 4

Interactive effects: Not known

When specific chemical data is not available: Not applicable

Mixture of chemicals: Refer to Section 2.1

Further information: No further toxicological information is available.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)) 10.56 mg/l, Exposure time: 96 h, The value mentioned relates to the active ingredient pyrimethanil.

Toxicity to aquatic invertebrates

LC50 (Daphnia magna (Water flea)) 2.9 mg/l, Exposure time: 48 h, The value mentioned relates to the active ingredient pyrimethanil.

Toxicity to aquatic plants

LC50 (Raphidocelis subcapitata (freshwater green alga)) 1.2 mg/l, Exposure time: 96 h, The value mentioned relates to the active ingredient.

Toxicity to other organisms

LD50 (Anas platyrhynchos (Mallard duck)) > 2,000 mg/kg, The value mentioned relates to the active ingredient pyrimethanil.

12.2 Persistence and degradability

Biodegradability

Pyrimethanil: Not rapidly biodegradable

Koc: Pyrimethanil: Koc: 301

12.3 Bioaccumulative potential Bioaccumulation

Pyrimethanil: Does not bioaccumulate.

12.4 Mobility in soil: Pyrimethanil: Moderately mobile in soils

12.5 Other adverse effects

SECTION 13. DISPOSAL CONSIDERATION

Metal drums and plastic containers:

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Do not reuse container for any other purpose.

SECTION 14. TRANSPORT INFORMATION

ADG

UN number: 3082

Transport hazard class(es): 9

Subsidiary Risk: None

Packaging group: III

Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. : (PYRIMETHANIL SOLUTION)

Hazchem Code: •3Z

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

IMDG

UN number: 3082

Transport hazard class(es): 9

Subsidiary Risk: None

Packaging group: III

Marine pollutant: YES

Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. : (PYRIMETHANIL SOLUTION)

IATA

UN number: 3082

Transport hazard class(es): 9

Subsidiary Risk: None

Packaging group: III

Environm. Hazardous Mark: YES

Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. : (PYRIMETHANIL SOLUTION)

SECTION 15. REGULATORY INFORMATION

Follow all local and international laws and regulations.

SECTION 16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

-- END OF MSDS --