

## **MATERIAL SAFETY DATA SHEET** **THIAMETHOXAM 25% WG**

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### **1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY**

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<b>Identification of the substance</b>	: Thiamethoxam 25% WG
<b>Use of the substance</b>	: Insecticide
<b>Manufacturer/supplier</b>	: Tagros Chemicals India Private Limited
<b>Address</b>	: "Jhaver Centre", Rajah Annamalai Building, IV Floor, 72, Marshalls Road, Egmore, Chennai-600 008, India
<b>Emergency telephone number</b>	: +91-44-42007400
<b>Fax number</b>	: +91-44-28587873
<b>E-mail</b>	: info@tagros.com

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### **2. HAZARDS IDENTIFICATION**

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#### POTENTIAL HEALTH EFFECTS: EMERGENCY OVERVIEW

<b>Eyes</b>	: May cause eye irritation.
<b>Skin</b>	: May be harmful if absorbed through the skin.
<b>Ingestion</b>	: Harmful if swallowed.
<b>Inhalation</b>	: May be harmful if inhaled.
<b>Environment</b>	: Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical name</u>	<u>CAS No.</u>	<u>EC No.</u>	<u>Classification</u>	<u>Con. % w/w</u>
Thiamethoxam (ISO); 3-(2-chloro-thiazol-5-ylmethyl)- 5-methyl[1,3,5]oxadiazinan-4- ylidene- <i>N</i> -nitroamine	153719-23-4	428-650-4	Xn; R22 N; R50-53	25.0
Others	---	--	---	75.0

### 4. FIRST AID MEASURES

<b>Contact with eyes</b>	: Rinse immediately with plenty of water keeping eyelids open. Seek medical advice and show the container or this material safety data sheet.
<b>Contact with skin</b>	: Carefully remove contaminated clothing. Wash affected area with soap and water. Seek medical aid if required.
<b>Ingestion</b>	: Repeatedly administer medicinal charcoal in a large quantity of water. Never give anything by mouth to an unconscious person. Do not induce vomiting.
<b>Inhalation</b>	: If inhaled, remove to fresh air and keep at rest. Obtain medical aid if required.

### 5. FIRE FIGHTING MEASURES

<b>Flash point</b>	: Non flammable
<b>Extinguishing media</b>	: If product is involved in a fire, use water spray, foam, dry powder, carbon dioxide or sand.
<b>Special exposure hazards</b>	: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health.
<b>Protective equipment for fire-fighting</b>	: Do not breathe fumes. Wear protective clothing & self contained breathing apparatus.

**Fire fighting guidance** : Whenever Thiamethoxam is involved in a major fire, advise the fire service to wear protective clothing and breathing apparatus. Inform the fire service and other relevant authorities that Permethrin is toxic for fish, and that water should be used only to cool unaffected stock.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions** : Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls.

**Environmental precautions** : Keep people and animals away. Prevent entry into drains, sewers and watercourses.

**Methods for cleaning up** : Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Wash the spillage area with water. Washings must be prevented from entering surface water drains.

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## 7. HANDLING AND STORAGE

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**Handling** : Wear chemically impervious gloves such as neoprene or nitrile. Wear safety glasses, goggles or face shield. Mechanical ventilation should be used when handling this product in enclosed spaces. Read and observe all precautions and instructions on the label.

**Storage** : Store in original containers, upright and closed. Store in areas that are cool, dry and well ventilated. Store away from seeds, fertilizers and animal feed stuff.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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<b>Exposure limit value</b>	: ADI: 0.02 mg/kg bw/day
<b>Engineering controls</b>	: Mechanical ventilation should be used when handling this product in closed spaces.
<b>Respiratory protection</b>	: NIOSH approved respirator in absence of mechanical ventilation. Wear a face mask that gives protection against toxic dusts.
<b>Hand protection</b>	: Wear chemical resistant nitrile gloves.
<b>Eye protection</b>	: Wear safety goggles with imperforated side shield and face shield.
<b>Skin protection</b>	: Avoid contact with skin. Wear apron, boots and full protective suit.
<b>Environmental exposure controls</b>	: Keep away from food, drink and animal feed stuff. This material and its container must be disposed off as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheet.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Physical state</b>	: Solid granular
<b>Color</b>	: Beige
<b>Odour</b>	: Slight
<b>Molecular Weight</b>	: 291.7 (Thiamethoxam)
<b>pH</b>	: 8.45
<b>Density</b>	: 0.614 g cm <sup>-3</sup> to 0.663 g cm <sup>-3</sup>

<b>Solubility in water</b>	: Miscible
<b>Octanol/water partition coefficient</b>	: $K_{ow} \log P = -0.13$ at 20 °C (Thiamethoxam)
<b>Surface tension of aqueous solutions</b>	: 0.05683 N m <sup>-1</sup>

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## **10. STABILITY AND REACTIVITY**

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<b>Stability</b>	: Stable for two years at ambient conditions.
<b>Conditions to avoid</b>	: Avoid excessive heat and flame
<b>Materials to avoid</b>	: Not known
<b>Incompatibility</b>	: Not known

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## **11. TOXICOLOGICAL INFORMATION**

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### **Acute toxicity**

<b>Rat LD<sub>50</sub> oral, Rats</b>	: 5000 mg/kg bw
<b>Rat LD<sub>50</sub> dermal, Rats</b>	: >2000 mg/kg bw
<b>Rat LC<sub>50</sub> inhalation, Rats</b>	: >3.153 mg/l
<b>Skin irritation</b>	: Non-irritant to skin of rabbits
<b>Eye irritation</b>	: Non-irritant to eye of rabbits
<b>Skin sensitization</b>	: Non-sensitizing to skin of Guinea pigs

## Long term studies

<b>Carcinogenicity</b>	: Non-carcinogenic in rats
<b>Mutagenicity</b>	: Non-mutagenic
<b>Reproductive toxicity</b>	: Not a reprotoxic in rats
<b>Teratogenicity toxicity</b>	: Non teratogenic effects in rats

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

<b><i>Danio rerio</i>, 96 hours</b>	: LC <sub>50</sub> 459.48
<b><i>Daphnia</i> spp., 48 hours</b>	: EC <sub>50</sub> > 100 mg.L <sup>-1</sup>
<b>Green algae, <i>Pseudokirchneriella subcapitata</i>, 72h</b>	: E <sub>r</sub> C <sub>50</sub> 363.37 mg.L <sup>-1</sup>
<b>Honeybees (contact)</b>	: LD <sub>50</sub> : >0.024 µg/bee (Thiamethoxam)
<b>Earthworm, <i>Eisenia foetida</i></b>	: LC <sub>50</sub> >1000 mg.kg <sup>-1</sup>
<b>Mobility</b>	: Moderate mobility in soil
<b>Persistence and degradability</b>	: Soil DT <sub>50</sub> (median) 51 d. stable in water under acidic condition, hydrolysed in alkaline conditions. Aqueous photolysis occurs rapidly. No bioaccumulation.

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## 13. DISPOSAL CONSIDERATIONS

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- Product disposal** : Do not empty into drains or waterways. Disposal of product would usually be by incineration in an appropriate licensed commercial incinerator. Advice may be obtained from local waste regulation authorities.
- Container disposal** : Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

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## 14. TRANSPORT INFORMATION

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- UN number** : 2588
- UN class** : 6.1
- UN packaging group** : III
- Proper Shipping Name** : PESTICIDE, SOLID, TOXIC, NOS
- Additional information** : Thiamethoxam is a marine pollutant

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## 15. REGULATORY INFORMATION

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- Classification** : Xn: Harmful  
N: Dangerous for the environment
- Risk Phrases** : R20/22: Harmful by inhalation and if swallowed.  
R 36/38: Irritating to eyes and skin  
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## Safety Phrases

: S1/2: Keep locked up and out of reach children.  
S13: Keep away from food, drink and animal feeding stuffs.  
S24/25: Avoid contact with skin and eyes.  
S57: Use appropriate containment to avoid environmental contamination  
S60: This material and its container must be disposed of as hazardous waste  
S61: Avoid release to the environment. Refer to special instructions/safety data sheets  
S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

## Reference regulation

: Regulation (EC) No 1907/2006

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## 16. OTHER INFORMATION

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### MSDS first issued

: 18<sup>th</sup> June 2002

### MSDS data revised

: 14<sup>th</sup> August 2020

## DISCLAIMER

The above information is intended to give general health and safety guidance on the storage and transport of the substance or product to which it relates. It is not intended to apply to the substance or product for which purposes the substance or product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with. The requirement or recommendation of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted for any injury loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.