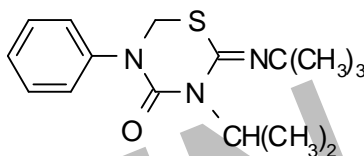


Material Safety Data Sheet

Product Name: BUPROFEZIN

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name: Buprofezin TC
CAS code: 69327-76-0
Chemical name: 2-tert-butylimion-3-isopropyl-5-phenyl-1,3,5,-thiadiazinan-4-one
Molecular weight: 305.4
Chemical formulation: C₁₆H₂₃N₃OS
Chemical structure:



Use: Insecticide with persistent larvicidal action against Homoptera, some Coleoptera and also Acarina. Effective against Cicadellidae, Deltocephalinae (leafhoppers) and Delphacidae (planthoppers) in rice; Cicadellidae (lady beetle) in potatoes; Aleyrodidae (whitefly) in citrus, cotton and vegetables; Coccidae, Diaspididae (scale insects) and Pseudococcidae (mealybugs) in citrus and top fruit; Tarsonemidae in vegetables, . Suitable for IPM programmes.

Manufacturer: Nanjing Essence Fine-Chemical Co., Ltd
Address: 5th Floor, Suoye Road 18#, Nanjing, China
Telephone Number: +86 25 86465997
 +86 25 86466001
Fax Number: +86 25 86455985
Website: www.essencechem.com

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average by Weight</u>
Buprofezin	69327-76-0	95%

SECTION 3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE

0-4): HEALTH=4 FIRE=0 REACTIVITY=0

Emergency Overview:

COLOR: white to light yellow crystalline powder

PHYSICAL FORM: crystalline powder

MAJOR HEALTH HAZARDS: potentially fatal if swallowed, harmful on contact with the skin

SECTION 4. FIRST AID MEASURES

Inhalation:

SHORT TERM EXPOSURE: same as reported in long term exposure, bleeding

LONG TERM EXPOSURE: no information on significant adverse effects

Skin contact:

SHORT TERM EXPOSURE: same as reported in long term exposure, bleeding

LONG TERM EXPOSURE: no information on significant adverse effects

Eye contact:

SHORT TERM EXPOSURE: no information is available

LONG TERM EXPOSURE: no information is available

Ingestion:

SHORT TERM EXPOSURE: same as reported in long term exposure, bleeding, death

LONG TERM EXPOSURE: rash, hair loss, digestive disorders.

SECTION 5. FIRE FIGHTING MEASURES

Move container from fire area if it can be done without risks.

Fight large fires from a protected location or safe distance. Stay away from the ends of tanks. Dike for later disposal. Do not scatter spilled material with high-pressure water streams. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Do not touch spilled material. Stop leak if possible without personal risk.

Reduce vapor with water spray. Small spills: Absorb with sand or other non-combustible material.

Collect spilled material in appropriate container for disposal. Small dry spills:

Move container away from spill to a safe area. Large spills: Dike for later disposal.

Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

SECTION 7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

Keep separated from incompatible substances.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits	No occupational exposure limits established.
Ventilation:	Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.
Eye protection:	Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Clothing:	Wear appropriate chemical resistant clothing.
Gloves:	Wear appropriate chemical resistant gloves.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid
Color:	Off-white
Physical form	powder
Odor:	odorless
Molecular weight:	305.4
Molecular formula:	C ₁₆ H ₂₃ N ₃ O ₅
Melting point:	104.5-105.5 °C
Vapor pressure:	1.25mPa (25 °C)
Vapor density:	1.18
Specific gravity:	Not applicable
Water solubility:	0.9mg/L(25 °C)
PH:	7-10.5
Solvent solubility:	240g/L in acetone, 520g/L in chloroform, 80g/L in ethanol, 20g/L in hexane, 320g/L in methybenzene, 370g/L in benzene

SECTION 10. STABILITY AND REACTIVITY

Reactivity:	Stable at normal temperatures and pressure.
Conditions to avoid:	Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.
Incompatibilities:	Not available
Hazardous decomposition:	Not available
Polymerization:	Will not polymerize.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity data:	Acute oral LD50 2198mg/kg for male rats and 2355mg/kg for female rats; acute percutaneous LD50 \geq 5000mg/kg for rats.
Acute toxicity level:	Highly Toxic: ingestion Toxic: dermal absorption

SECTION 12. ECOLOGICAL INFORMATION

Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

SECTION 14. TRANSPORT INFORMATION

Not applicable

SECTION 15. REGULATORY INFORMATION

Not applicable

SECTION 16. OTHER INFORMATION

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.