

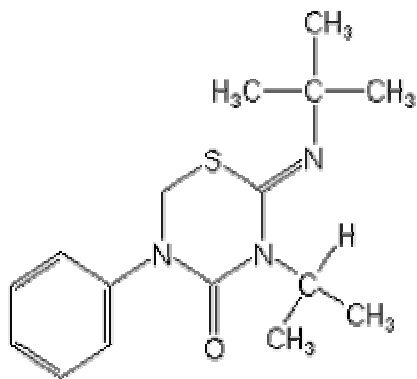
MATERIAL SAFETY DATA SHEET

BUPROFEZIN 25% SC (BLUNT)

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Details

Product Name :	Buprofezin 25% Suspension Concentrate
Trade Name :	BLUNT
Chemical Name(IUPAC) :	2-tert-butylimino-3-isopropyl-5-phenylperhydro-1,3,5-thiadiazin-4-one
Common Name :	Buprofezin (active ingredient)
Chemical Formula :	C ₁₆ H ₂₃ N ₃ OS
Molar Mass :	305.4
Chemical Family :	Thiadiazine compound
Use :	Insecticide
Chemical Structure :	



1.2 Company Identification

Manufacturer Name and Address :	M/s. Jai Shree Rasayan Udyog Ltd; M-4, Aradhana Bhawan, Commercial Complex, Azadpur, New Delhi – 110 033 Telephone : +91-11-4575 0100 (40 lines) Fax: +91-11-4575 0140
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SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENT

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Proportion</u>
2-tert-butylimino-3-isopropyl-5-phenylperhydro-1,3,5-thiadiazin-4-one	69327-76-0	25 % w/w

SECTION 3 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	White suspension
Odour :	Characteristic odour
Solubility :	Dispersible in water 0.9mg/L @ 25°C (Buprofezin)

Boiling Point :	No data available
Melting Point :	104.5-105.5 (Buprofezin)
Vapour Pressure :	9.4 x 10 ⁻⁶ mmHg @ 25°C (Buprofezin)
Percentage Volatiles :	No data available
Evaporation Rate :	No data available
Vapour Density :	No data available
Specific Gravity :	1.0 - 1.1
Flash Point :	Not applicable
Autoignition temperature :	No auto ignition
Flammable limit (%) :	No data available
Partition coefficient :	log P _{o/w} = 4.3 (Buprofezin)

SECTION 4 : HAZARD IDENTIFICATION

Harmful by inhalation.
Irritating to skin.

SECTION 5 : FIRST AID MEASURES

Ingestion :	Never induce vomiting if the patient is unconscious. If patient is conscious, induce vomiting after drinking water. Obtain medical attention.
Eye contact :	Rinse under running water for at least 15 minutes. Obtain medical attention.
Skin contact :	Remove contaminated clothing and wash skin thoroughly with soap and plenty of water. Wash contaminated clothing before reuse.
Inhalation :	Remove patient from exposure, keep at rest. Obtain medical attention as a precaution.
Notes to physician :	During the toxicological testing using applaud 250g/L SC, clinical symptoms were considered to results from the use of an occlusive dressing observed on Day 1 and 3. Signs observed were diarrhea, stains around the nose and signs on urinary incontinence.

SECTION 6 : FIRE FIGHTING MEASURES

Extinguishing Media :	Foam, CO ₂ , dry chemical.
Fire fighting instruction :	Fire fighters shall wear full-faced self-contained breathing apparatus and protective clothing Special hazards : Hazardous combustion products are carbon dioxide, carbon monoxide, nitrogen oxides and sulfur oxide.

SECTION 7 : ACCIDENTAL RELEASE MEASURE

Leak and/or Spill :	Wear protective clothing as indicated in Section 8. Evacuate non essential personnel. Adsorb the spillage with inert material such as clay, sand, white carbon etc. Collect the adsorbed material into a clean container for disposal as scheduled waste. Wash the contaminated area with a little water and detergent. Adsorb adsorb with inert material and collect into the same container. Wash the area and drain the water to Wastewater Treatment Plant.
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SECTION 8 : HANDLING AND STORAGE

Handling :	Wear protective clothing such as impervious gloves, respiratory mask and goggles. Read the label before use.
Storage :	Keep in original container, tightly closed, out of reach of children. Keep away from foodstuffs and animal feeding stuffs. Avoid extreme temperature.

SECTION 9 : EXPOSURE CONTROL AND PERSONAL PROTECTION

a. Exposure Limit :	2 mg/m ³ (JAIH) 1 mg/m ³ (NICHINO) The exposure limit is based on Buprofezin technical material JAIH : Japan Association of Industrial Health NICHINO : Nihon Nohyaku Exposure Limit
b. Engineering measures :	General ventilation, local exhaust ventilation
c. Personal protection :	Wear pesticide respirator mask, chemical safety goggles, protective gloves and clothing.

SECTION 10 : STABILITY AND REACTIVITY

Conditions to avoid :	Direct sunlight, heat and extreme temperature
Incompatible :	No data available
Decomposition Products :	May evolve carbon monoxide and nitrogen oxides upon combustion.
Hazardous polymerization :	None
Stability :	Stable under normal conditions.

SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicity Data (Applaud 250g/L SC)	
Acute Oral LD ₅₀ :	(Rat) > 2,000 mg/kg
Acute Dermal LD ₅₀ :	(Rat) > 2,000 mg/kg

Inhalation LC ₅₀ :	(Rat) male > 4.57 mg/L (4 hr) (based on Buprofezin Tech.)
Eye Irritation :	Irritating (by CPL calculation)
Skin Irritation :	Irritating (by CPL calculation)
Carcinogenicity :	Not carcinogen
Reproductive Effect :	No effect
Effects of overexposure :	No data available
Chronic effects :	Buprofezin did not produce genetic changes in rec-assay and Ames test.
Target organs :	Organ toxicity in rat was not observed.
Medical Conditions	
Generally Aggravated by exposure :	No data available
Buprofezin:	<p>In repeated dosing study for 13 weeks, rat fed buprofezin exhibited body weight depression, increase of relative liver weight and enlargement of hepatocyte. Dogs fed buprofezin for 2 years exhibited body weight depression, and increase of serum alkaline phosphatase activity and relative liver weight.</p> <p>Rat fed buprofezin for 2 years showed body weight depression. Any clinical parameters showing organ toxicity were not observed. In histopathological examination, an enlargement of hepatocyte and increase of smooth-surfaced endoplasmic reticulum. Buprofezin did not produce tumor in both sexes of rat.</p> <p>No birth defects were noted in rats and rabbits given buprofezin orally during pregnancy even at amount which produced body weight depression on the mothers. No effects were seen on the ability on male and female rats to reproduce when fed buprofezin for 2 successive generations. Buprofezin did not produce genetic changes in rec-assay and Ames test. In safety pharmacology studies, buprofezin showed any specific pharmacological effects.</p>

SECTION 12 : ECOLOGICAL INFORMATION

Mobility & Bioaccumulation :	No data available
Biodegradability :	No data available
Aquatic Toxicity : LC ₅₀ (96 hours) (Rainbow trout - <i>Salmo gairdneri</i>)	> 630 mg/l

EC₅₀ (96 hours) : (*Daphnia Magna*) > 234 mg/L
\$630 mg/l (NOEL)
\$234 mg/l (NOEL)

SECTION 13 : DISPOSAL INFORMATION

Dispose of according to applicable national environment laws and / or local regulation.

SECTION 14 : TRANSPORT INFORMATION

UN No.	2588
IMCO Class	6.1
IMDG PG	
Packing Group	III
Proper Shipping Name	Thiadiazine pesticide, liquid, toxic, Buprofezin 25% SC Aromatic solution)
Environmental risk	Marine pollutant

SECTION 15 : REGULATORY INFORMATION

Pesticides Act :	Class III - Harmful
CPL Regulations :	Class – Harmful, Irritant
Risk Phrases :	R20 Harmful by inhalation. R38 Irritating to skin.
Safety Phrases :	S1/2 Keep out of reach of children S36/37/39 Wear suitable protective clothing, gloves and eye protection

SECTION 16 : OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.