

MATERIAL SAFETY DATA SHEET OF

SAFLUFENACIL 70% WG

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product name: Saflufenacil 70% WG

Supplier: Shanghai Bosman Industrial Co., Ltd

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

Tel: + 86 21 63065878

Fax: + 86 21 63065878

Recommended use: Herbicide

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to UN GHS criteria

Repr. 2 (unborn child)

Aquatic Acute 1

Aquatic Chronic 1

For the classifications not written out in full in this section the full text can be found in section 16.

Label elements

Globally Harmonized System(GHS)

Pictogram:



Signal Word: Warning

Hazard Statement:

H361 Suspected of damaging the unborn child.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statement:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

Precautionary Statements(Prevention):

P280 Wear protective gloves, protective clothing and eye protection or face protection.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

Precautionary Statements (Response):

P391 Collect spillage.

P308 +P313 IF exposed or concerned: Get medical attention.

Precautionary Statements(Storage):

P405 Store locked up.

Precautionary Statements(Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Other hazards

None

3.COMPOSITION/INFORMATION ON INGREDIENTS

Other ingredients determined not to be hazardous

INGREDIENT	CAS NO	PROPORTION(%, w/w)
Saflufenacil	372137-35-4	70% min
Other ingredients	--	Up to 100%

4. FIRST AID MEASURES

If inhaled: If breathed in, move person into fresh air.Seek medical treatment.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical treatment.

Advice to Doctor: No specific antidote.Treatment symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

water spray, foam, dry powder

Special hazards arising from the substance or mixture

Carbon monoxide, Carbon dioxide, Ammonia, anhydrous, Hydrogen chloride, nitrogen oxides, sulfur oxides, halogenated compounds

The substances/groups of substances mentioned can be released in case of fire.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENT RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Avoid raising dust. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance le (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Granule

Color : NA

Odor : NA

pH : 4.0-7.0

Corrosive: Non corrosive

Explosion hazard: not explosive

Oxidisation: Not an oxidiser

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Stable under recommended storage conditions.

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents, strong acids, strong bases

Hazardous decomposition products

No hazardous decomposition products if stored and handled under recommended storage conditions.

11. TOXICOLOGICAL

For Saflufenacial TC

Acute toxicity

Acute oral LD₅₀ (rats) >2000mg/kg

Acute dermal LD₅₀ for rats >2000 mg/kg.

Acute inhalation LC₅₀ (4 h) for rats >5000 mg/m³

Skin corrosion/irritation

Non-irritating to skin (rabbits)

Serious eye damage/eye irritation

Non-irritating to eyes (rabbits)

Respiratory or skin sensitisation

Not a skin sensitiser (guinea pigs)

Chronic toxicity:

NOEL NOAEL (18 mo) for mice 4.6 mg/kg b.w. daily.

12. ECOLOGICAL INFORMATION

For Saflufenacial TC

Toxicity

Birds Acute oral LD50 (14 d) for bobwhite quail >2000 mg/kg b.w. Dietary LC50 (8 d) for bobwhite quail >5000 mg/kg diet.

Fish LC50 (96 h) >98 mg/l.

Daphnia LC50 (48 h) >100 mg/l.

Algae EC50 for Pseudokirchneriella subcapitata 0.041 mg/l.

Other aquatic spp. EC50 (28 d) for Chironomus riparius >7.7 mg/kg dry sediment.

Bees Acute LD50 (contact) 100 µg/bee.

Worms Acute EC50 (14 d) for earthworms >1000 mg/kg soil.

Other beneficial spp. LR50 for Typhlodromus pyri 647 g/ha.

13. DISPOSAL CONSIDERATION

Triple rinse container and add rinsate to spray tank, burn, if circumstances, especially wind direction permit, otherwise dispose of at an approved landfill. Dispose of this product only by using in accordance with label directions. Dispose of liquid contaminated material/or contaminated soil in an approved landfill. Disposal must be in accordance with applicable local regulations.

14. TRANSPORT INFORMATION

UN number: 3077

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SAFLUFENACIL)

Class : 9

Packing group: III

15. REGULATORY INFORMATION

Follow all local, international decree, regulation and laws.

16. OTHER INFORMATION

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Repr.	Reproductive toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
STOT SE	Specific target organ toxicity -single exposure
H361	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H320	Causes eye irritation.
H315	Causes skin irritation.
H313	May be harmful in contact with skin.
H302	Harmful if swallowed.
H335	May cause respiratory irritation.
H402	Harmful to aquatic life.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.
H318	Causes serious eye damage.
H302 +H332	Harmful if swallowed or if inhaled

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 --