



## MATERIAL SAFETY DATA SHEET

### Manufacturer/information service:

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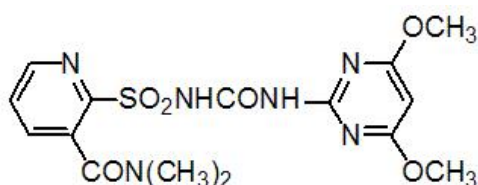
### 1. Chemical Product Identification

Common Name: Nicosulfuron 95% TC

Molecular Formula:  $C_{15}H_{18}N_6O_6S$

Molecular Weight: 410.41

Structural Formula:



Chemical Name:

2-[(4,6-dimethoxypyrimidin-2-ylcarbamoyl)sulfamoyl]-N,N-dimethylnicotinamide

Form: Powder

Color: White

CAS No.: 111991-09-4

### 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Nicosulfuron	111991-09-4	95
Other ingredients	---	5

### 3. Hazards Identification

Environmentally hazardous material to aquatic organisms. Harmful if swallowed, irritant to eyes and mucous membranes.



#### **4. First Aid Measures**

Inhalation: Immediately remove person to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Seek immediate medical attention/advice.

Skin contact: Take off all contaminated clothing immediately. Wash skin with gently flowing, running water for at least 20 minutes. If irritation persists, seek prompt medical attention. Wash contaminated cloths before re-use.

Eye contact: Clean eyes thoroughly with running water for at least 20 minutes, holding eyelids open to ensure complete washing. Seek immediate medical attention/advice.

Ingestion: Do NOT induce vomiting. Rinse victim's mouth with water, and then give him/her one to two glasses of water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice.

Notes for Physician: Treat symptomatically.

#### **5. Fire-Fighting Measures**

Suitable extinguishing media: Water spray, Dry chemical, Foam, Carbon dioxide (CO<sub>2</sub>).

Unsuitable extinguishing media: High volume water jet, (contamination risk).

Firefighting Instructions: Wear full protective clothing and self-contained breathing apparatus. (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

#### **6. Accidental Release Measures**

Person-related safety precaution: Avoid formation of dust.

Spill or leak procedures: Utilize recommended protective clothing and equipment. Remove all sparking devices or ignition sources. Spills should be swept up and placed in containers. Spill area can be washed with water. Collect wash water for approved disposal. Keep out of sewers, storm drains, surface or ground water and soil.

#### **7. Handling And Storage**

Handling (Personnel): Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco,



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or using the toilet. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing.

Handling (Physical Aspects): Keep away from heat and sources of ignition.

Storage: Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Store in a cool, dry place. Keep out of the reach of children.

## **8. Exposure Controls/Personal Protection**

Personal Protective Equipment:

General protective and Hygienic Measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Educate and train employees in the safe use and handling of this product.

Eye Protection Requirements: Chemical safety goggles.

Skin Protection Requirements: Protective gloves and chemically resistant clothing to minimize skin contact. Employees should wash their hands and face before eating, drinking or using tobacco products.

Respiratory Protection Requirements: In case of brief exposure or low pollution, use respiratory filter device. If intensive or longer exposure, use selfcontained respiratory protective devices.

Additional Information about design of technical facilities: No further data; See item 7.

Ingredients with limit values that require monitoring at the workplace: Not Required.

Additional Information: The lists valid during the making were used as basis.

## **9. Physical and Chemical Properties**

Appearance: White powder

pH: 3.0-5.0

Water content:  $\leq 1.0\%$

Acidity (as H<sub>2</sub>SO<sub>4</sub>):  $\leq 0.5\%$

Melting point: 145°C

Boiling point: Decomposes before boiling

Bulk density: 0.31 g/ml

Partition Coefficient: log P = 0.61 (at pH 7, 20°C)

Vapour pressure:  $8.0 \times 10^{-7}$  mPa (25°C)

Solubility: 7.5 g/l in water (20°C); In organic solvents: 8.9 g/l in acetone, 0.4 g/l in methanol,



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2.4 g/l in ethyl acetate, 21.3 g/l in dichloromethane (all at 20°C).

## **10. Stability and Reactivity**

Stability: Stable at normal temperatures and storage conditions.

Conditions to avoid: None reasonably foreseeable.

Incompatibility: No materials to be especially mentioned.

## **11. Toxicological Information**

Acute oral LD50 for rat: >5000 a.i.mg/kg

Acute dermal LD50 for rat: >2000 a.i.mg/kg

Inhalation LC50 (4 h) for rat: >5.47 a.i.mg/L

Skin irritation: Non-irritating to skin (rabbits)

Eye irritation: Moderately irritating to eyes (rabbits)

Skin sensitization: Not a skin sensitizer (guinea pigs).

## **12. Ecological And Ecotoxicological Information**

Effect on birds: low toxicity to birds, acute oral LD50 for Bobwhite quail is >2000 a.i.mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC50 for Rainbow trout is 65.7 a.i.mg/L.

Effect on aquatic invertebrates: moderate toxicity to aquatic invertebrates, acute 48 hour EC50 for Daphnia magna is 90 a.i.mg/L.

Effect on algae: moderate toxicity to algae, acute 72 hour EC50 for Anabaena flos-aquae is 7.8 a.i.mg/L.

Effect on honeybees: moderate toxicity to honeybees, contact acute 48 hour LD50 is 76 a.i.µg/bee; oral acute 48 hour LD50 is 5.24 a.i.µg/bee.

Effect on earthworms: low toxicity to earthworms, acute 14 day LC50 for Eisenia foetida is >1000 a.i.mg/kg.

## **13. Disposal Considerations**

Waste Disposal: Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container disposal: Refer to the product label for instructions. Do not transport if this container is damaged or leaking. In the event of a major spill, fire or other emergency.



**14. Transport Information**

Not applicable.

**15. Regulatory Information**

Not applicable.

**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.