

MATERIAL SAFETY DATA SHEET

NICOSULFURON 40SC

1. IDENTIFICATION OF PRODUCT AND COMPANY

Product Name Active Ingredient IUPAC Name	: Nicosulfuron 40 g/L SC : Nicosulfuron : 2-(4,6-dimethoxypyrimidin-2-ylcarbamoylsulfamoyl)- N, N dimethyl Nicotinamide; 1-(4,6-dimethoxypyrimidin-2-yl)-3-(3-dimethylcarbamoyl- 2- Pyridysulfonyl) urea
CAS No.	: 111991-09-4
Chemical Class	: Sulfonylurea
Use Class	: Herbicide
Formulation	: Suspension Concentrate
Supplier	: ANGLO GULF LIMITED
Address	: P.O. Box 16887, Jebel Ali, Dubai, U.A.E.
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Website	: <u>www.anglogulf.ae</u>

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS No.	Concentration (g/l)
Nicosulfuron	111991-09-4	40
Other non hazardous ingredients		Q.S

3. HAZARD IDENTIFICATION

Hazard classification

Hazardous (National Occupational Health and Safety Commission - NOHSC)

Risk phrases (R)

20 Harmful by inhalation.

38 Irritating to skin.

43 May cause sensitization by skin contact.

50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Safety phrases (S)

2 Keep out of the reach of children.

13 Keep away from food, drink and animal feeding stuffs.

20/21 When using, do not eat, drink or smoke.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 35 This material and its container must be disposed of in a safe way.

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36/37 Wear suitable protective clothing and gloves.

46 If swallowed, seek medical advice immediately and show this container or label.

57 Use appropriate containment to avoid environmental contamination.

Harmful if swallowed.

May cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES AND PRECAUTIONS

General advice:

Avoid contact with the skin, eyes and clothing. Remove contaminated clothing. If difficulties occur: Obtain medical attention. Show container, label and/or safety data sheet to physician.

If inhaled:

Keep patient calm, remove to fresh air, and seek medical attention.

On skin contact:

After contact with skin, wash immediately with plenty of water and soap. If irritation develops, seek medical attention.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Note to physician:

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. FIF	RE FIGHTING MEASURES	
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Suitable extinguishing media Specific hazards	 water spray, foam, dry extinguishing media, carbon dioxide. carbon monoxide, hydrogen chloride, carbon dioxide, nitrogen oxides, Phosphorus compounds, organochloric compounds. The substances/ groups of substances mentioned can be released in case of fire.
Special protective equipment	: Wear self-contained breathing apparatus and chemical-protective clothing.
Further information	: In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions

: Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately.

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Environmental precautions : Do not discharge into the subsoil/soil. Do not discharge into drains/surface Waters/groundwater. Methods for cleaning up or taking up:

For small amounts For large amounts : Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder).

: Dike spillage. Pump off product. Collect waste in suitable containers, which can Be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Incinerate or take to a special waste disposal site in accordance with local authority regulations.

7. HANDLING AND STORAGE REQUIREMENTS

Handling

Remove sources of naked flame or sparks. Harmful by absorption, or if swallowed or inhaled. Avoid contact with eyes, prolonged contact with skin, and inhalation of mist and vapour. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a nonabrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage

The product must be kept under lock and key. Keep out of reach of unauthorized persons, children and animals. Store in its original labeled container in cool (avoid temperature above 40 °C), well-ventilated dry area, away from heat, sparks and other sources of ignition. Product hydrolyses rapidly in aqueous alkaline solutions. Avoid cross contamination with other pesticides and fertilizers. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection:

Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2) Respiratory protection in case of vapour/aerosol release. Wear respiratory protection if ventilation is inadequate.

Hand protection: Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. Nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other.

Eye protection: Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to DIN-EN 465).

General safety and hygiene measures:

The statements on personal protective equipment in the instructions for use apply when handling cropprotection agents in final-consumer packing. Wearing of closed work clothing is recommended.

Avoid contact with the skin, eyes and clothing. Hands and/or face should be washed before breaks and at the end of the shift. Keep away from food, drink and animal feeding stuffs. No eating, drinking, smoking or tobacco use at the place of work. Store work clothing separately.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: white yellow viscous liquid
Odour	: odourless
Flash point	: not flammable
Density	: 1.005 (+/- 0.05)
Solubility in water	: dispersible
Surface tension	: approx. 52.6 mN/m (20 °C; 5 %(V))approx. 71.6 mN/m (20 °C; 1 %(V))
Partition co-efficient	: Kow=1.6 (pH 5.6, 20°C, a.i.)
(n-octanol/water)	
Vapour pressure	: 7.5 × 10-7 mmHg (110°C) (Nicosulfuron)

10. STABILITY AND REACTIVITY

Stability	: Stable under normal conditions.	
Incompatibility	: Avoid mixing with strong acids and strong alkalis.	
Decomposition	: Decomposition will not occur under normal conditions.	
Dangerous Reactions	: Products arising from combustion or thermal decomposition	

11. TOXICOLOGICAL INFORMATION

Acute toxicity/irritations studies (for end product):		
Acute oral	: Practically Non-toxic	
	LD50 (rat) > 5000 mg/kg	
Acute Derma	: Slightly Toxic	
	LD50 (rat) > 2000 mg/kg for rats	
Acute Inhalation	: Moderately Toxic	
	LC50 (rat) > 1.18 mg/l for rats	
Eye Irritation	: Slightly irritating to eyes of rabbits	

Dermal Irritation: Mildly irritating to skin of rabbitsDermal Sensitization: Not a sensitizer to guinea pigs

Chronic (Nicosulfuron technical)

Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

Following data only available for nicosulfuron technical:

Birds: Practically non-toxic to birds

Acute oral LD50 for bobwhite quail > 2000 mg/kg bw. dietary LC50 (8 d) for bobwhite quail > 5000 ppm. **Fish:** Practically non-toxic to fish : Acute LC50 (96 h) for rainbow trout and bluegill sunfish > 1000 mg/l. **Daphnia:** Practically non-toxic to daphnia LC50 (48 h) > 1000 mg/l.

Algae: Practically non-toxic to algae.

EC50 (96 h) for Selenastrum capricornutum was not established, NOEC 100 mg/l.

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Very toxic to some plant species (selective herbicide)

Bees: Slightly toxic to bees: LD50 (oral) > 100 µg/bee; LC 50 (contact) > 20 µg/bee

Soil/Environment (Nicosulfuron technical)

Soil typical DT50 (aerobic) 26 d (pH 6.1, 5.1% o.m., 25 °C).

13. DISPOSAL CONSIDERATION

Product Disposal On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals.

Container Disposal Do not use this container for any other purpose. Triple rinse containers; add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. Drum MUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drum Muster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill.

If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Registered Address: P.O. Box 3136, Tortola, British Virgin Islands

Land transport A UN number	DR/RID	: 3082	
Proper Shipping ((contains nicosulf		: Environmentally hazardous substance, liquid, n.o.s.	
Class		:9	
Subsidiary Risk		: Not regulated	
Packaging group		: III	
Marine transport	t IMDG		
UN number		: 3082	
Proper Shipping Name : Environmentally hazardous substance, liquid, n.o.s.		ous substance, liquid, n.o.s.	
(Contains nicosul	furon)		
Class		:9	
Subsidiary Risk		: Not regulated	
Packaging group		:	
Marine pollutant	;	:Yes	
Air transport ICA	Ο/ΙΑΤΑ		
UN number		: 3082	
Proper Shipping Name		: Environmentally hazardous substance, liquid, n.o.s.	
(Contains nicosul	furon)		
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14. TRANSPORT INFORMATION





Subsidiary Risk Packaging group : Not regulated

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15. REGULATORY INFORMATION

EPCRA SARA Title III Classification: Section 311/312 Hazard Classes : Acute Health Hazard Section 313 Toxic Chemicals : Not Applicable California Proposition 65 Not applicable CERCLA/SARA 302 Report Quantity (RQ) None. RCRA Hazardous Waste Classification (40 CFR 261) Not applicable TSCA Status Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

Disclaimer

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or nonstandard uses of the product or where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

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