

SAFETY DATA SHEET

PYROXASULFONE TECH



1: Identification

1.1 Identification

Substance Name	:	Pyroxasulfone Technical
IUPAC Name	:	[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1 <i>H</i> -pyrazol-4-yl]methyl 4,5-dihydro-5,5-dimethylisoxazol-3-yl sulfon
CAS No	:	447399-55-5
EC/ List No	:	Not available
Formula	:	C ₁₂ H ₁₄ F ₅ N ₃ O ₄ S
Synonyms:	:	Pyroxasulfone

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture	:	Herbicide
Relevant identified uses	:	To make its formulations for agricultural use only.
Restrictions on use	:	Not to be used for human or animal consumption

1.3. Details of the supplier of the safety data sheet

Manufacturer / Supplier	:	NACL Industries Limited
Address	:	Plot No.12-A, 'C' Block, Lakshmi Towers, Nagarjuna Hills, Panjagutta, Hyderabad- 500082. Telangana, INDIA
Email Id	:	info@naclind.com
Web site address	:	www.naclind.com
Tele Fax Number	:	T 0091 4033605264

1.4. Emergency telephone Number

Emergency number	:	0091 4033605264 (Monday -Friday-09.30 hrs to 18.00 hrs)
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2: Hazard(s) identification

GHS classification

2.1: Classification of the substance or mixture

Specific target organ toxicity — repeated exposure	:	H373	Category 2
Acute aquatic toxicity	:	H400	Category 1
Chronic aquatic toxicity	:	H410	Category 1

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Hazard Pictograms	:	
Signal word	:	Warning
Hazard Statements	:	H373 (93.3%): May causes damage to organs through prolonged or repeated exposure [Warning Specific target organ toxicity, repeated exposure] H400: Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects
Precautionary Statements	:	P260 Do not breathe dust/fume/gas/mist/vapours/spray P273 Avoid release to the environment. P319 to get medical help if you feel unwell

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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

2.4. Unknown acute toxicity

Not applicable

3 : Composition/ Information on ingredients

3.1 Substance

Substance type : Mono-constituent

Name	Product Identifier	% w/w	GHS Classification
Pyroxasulfone Technical	CAS No: 447399-55-5	98.0 Min	Specific target organ toxicity — repeated exposure 2 Aquatic Acute 1; Aquatic Chronic1; H373, H400, H410
Inert materials	----	02.0 Max	--

Full text of the hazard classes and H-Statements: see Section 16

3.2 Mixture

Not applicable

4: First aid measures

4.1 Description of first aid measures

- | | | |
|---------------------------------------|---|---|
| First-aid measures general | : | Show this material safety data sheet to the doctor in attendance. |
| First-aid measures after inhalation | : | In case of unconsciousness place patient stably in side position for transportation. If symptoms persist, call a physician. |
| First-aid measures after skin contact | : | Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician |
| First-aid measures after eye contact | : | After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses. |
| First-aid measures after ingestion | : | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention. |

4.2. Most important symptoms and effects, both acute and delayed

Mild skin irritant, Moderate eye irritant and Skin sensitizer, Salivation, Nasal discharge, lethargy, abnormal gait, tremors and ataxia

4.3. Indication of any immediate medical attention and special treatment needed

No specific antidote available, treat symptomatically

5: Firefighting measures

5.1 Extinguishing media

- | | | |
|--------------------------------|---|---|
| Suitable extinguishing media | : | CO ₂ , sand, extinguishing powder. Do not use water.
Use fire extinguishing methods suitable to surrounding condition |
| Unsuitable extinguishing media | : | For this substance/mixture no limitations of extinguishing agents are given. |

5.2. Special hazards arising from the substance or mixture

No information available

5.3 Advice for Firefighters

- | | | |
|---------------------------|---|--|
| Firefighting Instructions | : | Stay in danger area only with self-contained breathing apparatus.
Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |
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Protection during firefighting : Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Do not enter fire area without proper protective equipment, including respiratory protection

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Protective equipment : Equip cleanup crew with proper protection. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact.

Emergency Procedures : Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2 Environmental Precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

7: Handling and storage

7.1. Precautions for safe handling

Advice on protection against fire and explosion : Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid generation of dust.

Hygiene measures : Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Tightly closed. Keep away from heat and sources of ignition. Store only in the original receptacle. Keep container in a well-ventilated place. Keep away from sources of ignition and heat

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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8: Exposure controls/personal protection

8.1 Control Parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Protective goggles. Gloves. Protective clothing. Face shield. Gas mask with filter.

Personal protective equipment



GIVE EXCELLENT RESISTANCE: butyl rubber.
polyethylene/ethylene vinyl alcohol.

Materials for protective clothing

GIVE GOOD RESISTANCE: neoprene. GIVE LESS RESISTANCE: natural rubber. PVC. GIVE POOR RESISTANCE: polyethylene. PVA.

Hand protection

: Gloves.

Eye protection

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

Skin and body protection

: This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Respiratory protection

: Required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

Control of environmental exposure

: These measures have to be properly documented.
Do not let product enter drains. Risk of explosion.

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9: Physical and chemical properties

Physical States	: Solid
Appearance	: Solid
Color	: White to off white solid
Odor	: Odourless
Odor threshold	: No data available
pH	: No data available
Melting Point	: 130.7°C
Freezing point	: No data available
Boiling point	: No data available
Octanol Parttion co-efficient Kow	: log Pow 2.39 at 25°C
Flammability(solid, gas)	: Non flammable material
Vapor pressure	: 2.4 x 10 ⁻⁶ Pa (25 °C)
Relative Density	: 1.60@20°C
Molecular mass	: 391.3 g/mol
Solubility	: In water 3.48mg/L at 20°C. in n-hexane toluene 1.4g/L at 20°C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity Kinematic	: No data available
Viscosity dynamic	: No data available
Explosion limits	: Non-explosive

9.2 Other information

Surface tension No data available

10: Stability and reactivity

10.1 Reactivity :

The Stable under normal conditions

10.2 Chemical stability :

The product is chemically stable under standard ambient conditions (room temperature)

10.3 Possibility of hazardous reactions :

No dangerous reactions known .

10.4 Conditions To Avoid :

Heat

10.5 Incompatible materials :

Strong oxidizing agents

10.6 Hazardous decomposition products:

In the event of fire: see section 5

11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity	:
LD ₅₀ Oral toxicity	: Rats >2000 mg/kg.
LD ₅₀ Dermal toxicity	: Rat >2000 mg/kg
LC ₅₀ Inhalation toxicity	: LC50 (4 h) for rats >6.56 mg/l air
Skin corrosion /irritation	: Mild-irritant (Rabbit)
Serious eye damage/irritation	: Moderate irritant (Rabbit)
Respiratory or skin sensitization	: Sensitizer
Germ cell mutagenicity	: No data available
Carcinogenicity	: No data available
Reproductive toxicity	: No data available
Specific target organ toxicity(single Exposure)	: No data available

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Specific target organ toxicity(repeated Exposure) : No data available
Aspiration hazard : No data available

12: Ecological information

12.1 Toxicity

Type	Kind	Test	Value
Birds	Mallard duck (<i>Anas platyrhynchos</i>)	LD ₅₀ (oral)	>2000 mg/kg
	Bobwhite quail (<i>Colinus virginianus</i>)	LD ₅₀ (dietary)	>2250 mg/kg
Fish	Bluegill sunfish	LC ₅₀ (96 h)	>15.1 mg/l
	Rainbow trout (<i>Oncorhynchus mykiss</i>)	LC ₅₀ (96 h)	>13.8 mg/l
Aquatic invertebrates	<i>Daphnia magna</i>	EC ₅₀ (72h)	>1,000mg/L
Aquatic plants	Algae (<i>Selenastrum capricornutum</i>)	ErC ₅₀ (96h)	0.00263 mg/L
Bees	-	LD ₅₀	> 100 µg/be µg/bee;
Worms	<i>Eisenia foetida</i>	LC ₅₀ (14 d)	> 997mg/kg

12.2 Persistency and degradability

Persistency and degradability : DT50 soil 16-28 days

12.3 Bio-accumulative potential

Bio-accumulative potential : log Pow 2.39

12.4 Mobility in soil

Ecology-soil : No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

13: Disposal Considerations

13.1. Waste treatment methods

Waste Disposal recommendations

Dispose of product concentrate and diluted product according to local waste regulation authority. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. Containers can be rinsed and offered for recycling (authorized). Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in licensed landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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14: Transport information

Marine transport(IMDG)

UN number : 3077
Proper shipping name and description : Environmentally Hazardous Substance, solid, N.O.S. (Pyroxasulfone)
Class : 9
Packaging group : III
Marine pollutant : Yes

Air Transport ICAO/IATA

UN number : 3077
Proper shipping name and description : Environmentally Hazardous Substance, solid, N.O.S. (Pyroxasulfone)
Class : 9
Packaging group : III

Department of Transportation(DOT)

UN number : 3077
Proper shipping name : Environmentally Hazardous Substance, solid, N.O.S.. (Pyroxasulfone)
Transport hazard class : 9
Packaging group(DOT) : III

15. Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Contact supplier for inventory compliance status

16 : Other Information

Hazard Statements : H373 (93.3%): May causes damage to organs through prolonged or repeated exposure [Warning Specific target organ toxicity, repeated exposure]
H400: Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects

NACL Industries Ltd

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