SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1272/2008 (CLP/GHS)

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name Propaquizafop Technical
Chemical name 2-isopropylidenamino-oxyethyl (R)-2-[4-(6-chloro-quinoxalin-2-yloxy)phenoxy]propionate
CAS No. 111479-05-1

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

Recommended Use Herbicide

1.3. Details of the supplier of the safety data sheet

Supplier Name &Address **CROPNOSYS INDIA PVT. LTD**
Plot No. 5303, GIDC Estate, Phase IV, Vapi, District - Valsad
PIN- 396195, Gujarat, INDIA

Tel No. +91 22 652 26797

For further information, please contact

Email address info@cropnosysindia.com
Website www.cropnosysindia.com

1.4. Emergency telephone number

Emergency Telephone +91 22 652 26797

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]
Acute toxicity, Skin Sensitization Category 1B – (H317)
Aquatic Acute Category 1 – (H400)
Aquatic Chronic Category 1 – (H410)

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Signal Word Warning

Hazard Statements
H317 – May cause allergic skin reaction
H410 – Very Toxic to aquatic life.

Precautionary Statements
P264 – Wash hands thoroughly after handling
P270 – Do not eat, drink or smoke when using the product
P301 + P312 - IF SWALLOWED:
Call a POISON CENTER or doctor/physician if you feel unwell.
P330 – Rinse Mouth.
P273 – Avoid release to the environment.
P391 – Collect spillage
P501 – Dispose of contents/ container in accordance with local/regional/national/regulation.

2.3. Other hazards

Very toxic to aquatic life with long lasting effects.This substance/mixture contains no components considered to be either persistent,bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3: COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Index Number	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Concentration
Propaquizafop (ISO); 2-isopropylidenamino-oxyethyl (R)-2-[4-(6-chloro-quinoxalin-2-yloxy)phenoxy]propionate	41394-05-2	NA	Skin Sensi. 1B – H317 Aquatic Acute 1 – H400 Aquatic Chronic 1 – H410	98.0% (min)

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician..

Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Skin Contact Wash with plenty of soap and water.

Eye contact Immediately flush with plenty of water at least for 15 minutes.

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

Symptoms No specific symptoms available. Refer section 11.

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

Treatment No specific *antidote* known. Treat symptomatically and give supportive therapy.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

If product is involved in a fire, use water spray, foam, dry powder, carbon dioxide or sand. Keep nearby containers and equipment cool with a water stream.

5.2. Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas.

5.3. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4. Further information

No data available

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8.

6.2. Environmental precautions

Do not discharge into the drains/surface water/groundwater

6.3. Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other Sections

Refer to protective measures listed in sections 8.
Refer to disposal considerations listed in section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Ensure good ventilation. Avoid build up of dust. Wear full protective clothing. Eating, drinking and smoking should be prohibited during handling. Wash hands after use and to remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

It should be stored in clearly labelled rigid and leak proof containers and away from containers of food and drink. Storage should be under lock and key and secure from access by children and other unauthorized persons. Store in a well-ventilated place. Do not store together with oxidizing & strong alkalies agents

7.3. Specific end use(s)

Avoid build up of dust. When opening a container and mixing, protective impermeable boots, clean overalls impermeable gloves, eye protection and a respirator should be worn. Avoid contact to mouth and eyes. Before eating, drinking or smoking, hands and other exposed skin should be thoroughly washed.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limit Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Engineering measures Mechanical ventilation should be used when handling this product in closed spaces.

Individual protection measures, such as personal protective equipment

General precautions Do not inhale dust.

Respiratory protection For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator.For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection	**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 Regulation (EU)2016/425 and the standard EN 374 derived from it. **Body Protection:** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Thermal hazards	Whenever this product involved in a major fire, firefighters to wear boots, overalls, gloves, eye and face protection and breathing apparatus.
Environment exposure controls	Keep away from food, drink and animal feed stuff. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheet

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	White to off white powder
pH	No data available
Melting point/range	62 ^{0}C
Boiling point/range	No data available
Flash point	**> 100** ^{0}C
Upper/lower flammability or explosive limits	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Non-relevant
Upper /Lower explosion limit	Non-explosive
Vapour pressure	4.395 x 10^{-10} Pa (25 ºC)
Relative density	No data available
Water solubility	0.63 mg/l (20 ºC).
Partition Coefficient n-octanol /water	KOW logP = 4.78 (25 ºC)
Autoignition temperature	No data available
Decomposition temperature	**26**0°C
Viscosity	No data available
Vapour density	No data available
Explosive properties	Not explosive
Oxidizing properties	Non-oxidizer

9.2. Other information

Henry's law constant : 9.2 x 10^{-8} Pa m^3 mol^{-1} (20 °C, calc.)

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable for two years at ambient conditions.

10.3. Possibility of hazardous reactions

Reactions with strong alkalies. Incompatible with oxidizing materials

10.4. Conditions to avoid

Avoid excessive heat and flame.

10.5. Incompatible materials

Oxidizing agents, alkali.

10.6. Hazardous decomposition

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas.Other decomposition products - No data available
In the event of fire: see section 5.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute oral toxicity	Oral LD_{50}: 5000 mg/kg bw (Rats) Dermal LD_{50}: >2000 mg/kg bw (Rats) Inhalation LC_{50} : 2500 mg/m^3 air
Skin corrosion/irritation	Non-irritant to skin of rabbits
Serious eye damage/ irritation	Non-irritant to eye of rabbits
Respiratory or skin sensitisation	Sensitizer to skin of Guinea pigs
Germ cell mutagenicity	Non-Mutagenic
Carcinogenicity	Non-carcinogenic
Reproductive toxicity	Non-reprotoxic and teratogenic
- **Single exposure**	Not applicable
- **Repeated exposure**	Not applicable
Aspiration hazard	No data available
Additional information	Chemical pneumonitis resulting from aspiration of the solvent into the lungs is a hazard that occurs when liquid formulations are used.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to fish carpio	**Mirror carp Cyprinus** LC_{50} – (96 h): 0.19mg/l

Toxicity to daphnia magna	LC_{50} (48 h) 0.9 mg/l
Pseudokirchneriella subcapitata	EC_{50} : > 2.1 mg/l
Bees	Acute Oral LD_{50} > 20 ug/bee & Contact LD_{50} > 200 ug/bee
Earthworms, *Eisenia foetida*	LC_{50} :>500 mg/kg dry soil
Birds, Bobwhite Quail	LD_{50}: >2000 mg/kg

12.2. Persistence and degradability

Propaquizafop degraded rapidly. DT50/DT90 values were concluded to be less than 3 days in all soils

12.3. Bioaccumulative potential

Propaquizafop not expected to bioaccumulate.

12.4. Mobility in soil

Propaquizafop is highly unstable in soil.

12.5. PBT and vPvB assessment

Does not meet the criteria for vPvB in accordance with Annex XIII of REACH.

12.6. Other adverse effects

Very toxic to aquatic life with long lasting effects.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product	Avoid exposure, if possible by the use of appropriate protective clothing and masks. Dispose of in a pesticide approved landfill, or in a chemical incinerator equipped with scrubbers. Dispose in a safe manner in accordance with local/national regulations Never pour waste or surplus products into public sewers or where there is any danger of run-off or seepage to streams, watercourses, open waterways, ditches, fields with drainage systems, or to the catchment areas of boreholes, wells, springs, or ponds.
Package disposal	Puncture containers to prevent reuse. Dispose of container in accordance with local regulation.

Section 14: TRANSPORT CONSIDERATIONS

ADR/RID/ADN

14.1	UN number	3077
14.2	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.3	Transport hazard class(es)	9
14.4	Packing group	III
14.5	Environmental Hazards	Environmentally hazardous

IMDG

14.1	UN number	3077
14.2	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.3	Transport hazard class(es)	9
14.4	Packing group	III
14.5	Environmental Hazards	Marine Pollutant

IATA

14.1	UN number	3077
14.2	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.3	Transport hazard class(es)	9
14.4	Packing group	III

14.6 Special precautions for user

Ensure that containers are sound and that labels are securely fixed and undamaged before dispatch. Do not load together with food and animal feed.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant

Section 15: REGULATORY INFORMATION

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

Propaquizafop has been classified under Dangerous substances Regulation No 1272/2008.

15.2 Chemical Safety Assessment

Risk assessment has been performed by European Food Safety Authority (EFSA).

Section 16: OTHER INFORMATION

Indication of changes

Changes have been made in all section.

Abbreviations and acronyms

LD50:	Lethal Dose, 50%
LC50:	Lethal Concentration, 50%
ADR:	International Carriage of Dangerous Goods by Road
IMDG:	International Maritime Dangerous Goods
ICAO/IATA:	International Civil Aviation Organization /International Airlines Travel Agent
RID:	International Carriage of Dangerous Goods by Rail

Key literature references and sources for data

World Health Organization for the International Programme on Chemical Safety.

Summary of the *EFSA Scientific Report (2008) 204, 1-171*
Conclusion on the pesticide peer review of propaquizafop.

Training
Training of workers in techniques to avoid contact with substance is essential.

Revision Note *** -Change from previous version.

The material safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008 [CLP/GUH]

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet