SAFETY DATA SHEET

In accordance with Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

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

1.1. Product identifier

Product Name Flonicamid Technical

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

Recommended Use Preparation of Insecticide formulations

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, Oral (Category 4), H302

H302-Harmful if swallowed.

2.2. Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram

GHS07

Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.

Precautionary statement(s)

P264 : Wash {hands} thoroughly after handling.
P301+312 : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 : Rinse mouth

Supplemental Hazard Statements : none

2.3 Other hazards - none

Section 3: COMPOSITION/ INFORMATION ON INGREDIENTS

Component	CAS-No. Index-No.	Classification	Content
Flonicamid Technical Chemical Name: N-cyanomethyl-4-(trifluoromethyl)nicotinamide	158062-67-0 616-216-00-9	Acute Tox. 4; H302,	98.0% min

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention

In case of skin contact Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In case of eye contact Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

If swallowed	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
Most important symptoms and effects, both acute and delayed	Refer Section 11 or 2.2
Indication of any immediate medical attention and special treatment needed	No data available

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), hydrogen fluorides

Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

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. Evacuate personnel to safe areas. Avoid breathing dust.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and materials 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

For disposal see section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid breathing dust/fume/gas/mist/vapours/spray.
Provide appropriate exhaust ventilation at places where dust is formed.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end uses

No data available

Section8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday

Personal protective equipment

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 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

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.

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).

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

a) Appearance	White Solid powder
b) Odour	Odourless
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point	157.5°C
f) Initial boiling point and boiling range	Not Applicable
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	Not highly flammable
j) Upper/lower flammability or explosive limits	Not available
k) Vapour pressure	2.55 ×10-6 Pa at 25°C & 9.43 ×10-7 Pa at 20°C
l) Vapour density	No data available
m) Relative density	1.54
n) Water solubility	5.2 g/L at 20°C
o) Partition coefficient: n-octanol/water	Log P_{ow} = -0.24 at 20°C & 1.9 (LogPow = 0.3) at 29.8°C
p) Autoignition temperature	Not auto-flammable
q) Decomposition temperature	306-320°C
r) Viscosity	Not applicable
s) Explosive properties	not explosive
t) Oxidizing properties	not Oxidizing

Other information No data available

Section 10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

No data available

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), hydrogen fluoride.

Other decomposition products - No data available

In the event of fire: see section 5

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - rat - >5000 mg/kg
LC50 Inhalation - rat – > 5.02 mg/L
LD50 Dermal - rat - > 2000 mg/kg

Skin corrosion/irritation

Non Irritant to Skin of Rabbits

Serious eye damage/eye irritation

Non irritant eyes of Rabbits

Respiratory or skin sensitization

Not a Skin Sensitizer to guinea pigs.

Germ cell mutagenicity

No Genotoxic potential.

Carcinogenicity

Not considered as Carcinogenic .
NOAEL values:7.32 mg/kg bw/d (rat, 2-y) & 10 mg/kg bw/d (mouse, 18-month)

Reproductive toxicity

NOAEL (Rats) :109 mg/kg bw/d (highest dose tested)

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Birds	: LD50 (quail. boths sexes) > 2000 mg a.s./kg bw LD50 (duck. male) = 2621 mg/kg bw LD50 (duck. female) = 1591 mg/kg bw LC50 Bobwhite quail (8 d): 4613 mg/kg
Fish	: LC_{50} (96 h) for Oncorhynchus mykiss > 100 mg a.s./L
Daphnia	: EC_{50} (48 hrs) > 100 mg a.s./L
Algae	: EC_{50} (48 h) for Pseudokirchneriella subcapitata > 100 mg a.s./L
Earth Worm	: > 1000 mg a.s./kg soil
Bees	: Acute LD50 (48 h) Oral and contact > 100 µg / bee LC50 (48 h) Apis mellifera: > 60.5 µg / bee

Persistence and degradability

Very low to low persistence and not readily biodegradable.

Bio-accumulative potential

No potential for body accumulation

Mobility in soil

Exhibit very high mobility in soil.

Results of PBT and vPvB assessment

No data available

Other adverse effects

No data available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

Section 14: TRANSPORT CONSIDERATIONS

ADR/RID/ADN

14.1 UN number	:	Not classified as dangerous goods
14.2 Proper shipping name	:	Not applicable
14.3 Transport hazard	:	Not applicable
14.4 Packing group	:	Not applicable.
14.5 Environmental Hazards	:	Not applicable.

IMDG

14.1 UN number	:	Not classified as dangerous goods
14.2 Proper shipping name	:	Not applicable
14.3 Transport hazard	:	Not applicable
14.4 Packing group	:	Not applicable.
14.5 Environmental Hazards	:	Not applicable.

IATA

14.1 UN number	:	Not classified as dangerous goods
14. 2 Proper shipping name	:	Not applicable
14.3 Transport hazard	:	Not applicable
14.4 Packing group	:	Not applicable.
14.5 Environmental Hazards	:	Not applicable.
14.6 Special precautions for user	:	Not applicable.

Section 15: REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

Section 16: OTHER INFORMATION

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

1. IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
2. HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
3. IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
4. eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
5. CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
6. ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
7. ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
8. Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
9. ECHA - European Chemicals Agency, website: https://echa.europa.eu/

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 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