	GSP Crop Science Limited
	SAFETY DATA SHEET
	Lambda-Cyhalothrin 10.6% CS

Version: 03	Revision Date: 01.04.2025	This version replaces all previous versions.

SECTION 1: Identification of the substance or mixture and of the supplier		
1.1 Product identifier		
Product	:	Lambda-Cyhalothrin 10.6% CS
Pure substance/mixture	:	Mixture
1.2 Other means of identification		
CAS No.	:	91465-08-6
1.3 Recommended use of the chemical and restrictions on use		
Identified uses	:	Insecticide
Use advised against	:	No data available
1.4 Supplier's details		
Name	:	GSP Crop Science Limited
Address	:	404, Lalita Complex, Rasala Road, Mithakhali Six Road, Navrangpura, Ahmedabad- 380009, Gujarat, India.
Phone number	:	+91-79 26466580
Email address	:	info@gspcrop.in
1.5 Emergency phone number		
	:	+91 79 22900451 +91 79 61915111 +91 79 61915151 **Timing:** IST 9 :30 to 17:30 hrs.
SECTION 2: Hazards identification		
2.1 GHS classification of the substance/mixture		
Hazard Category	:	Oral: Category 4 Inhalation: Category 4 Skin Sensitizer: Category 1B Carcinogenicity: Category 2 Aspiration Hazard: Category 1
2.2 GHS label elements		
Hazard Pictograms	:	
Signal Word	:	Warning
Hazard Statements	:	H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H351 Suspected of causing cancer. H400 Very toxic to aquatic life

		H410 Very toxic to aquatic life with long lasting effects.
Supplement Hazard statements	:	-------
Precautionary Statements		
Prevention	:	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P264: Wash hands thoroughly after handling. P280: Wear protective gloves, protective clothing and eye protection.
Response	:	P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313: IF exposed or concerned: Get medical attention/advice.
Storage & Disposal	:	P501 Dispose of contents/ container to an approved waste disposal plant
2.3 Other hazards which do not result in classification or are not covered by the GHS.		
Other Hazards	:	May cause temporary itching, tingling, burning or numbness of exposed skin, called paraesthesia.

SECTION 3 : Composition/information on ingredients

3.1 Substance/Mixture

3.2 Hazardous components

Chemical name/ Common Name	Content % (w/w)	CAS Number	Classification	Hazard statements
Lambda Cyhalothrin	10.60	91465-08-6	Oral: Category 4 Inhalation: Category 4 Skin Sensitizer: Category 1B Carcinogenicity: Category 2 Aspiration Hazard: Category 1	H302, H304 H317, H318 H319, H332 H351
Petroleum Solvent	5.00 - 10.00	872-50-4	Flammable Liquid 3, Germ cell mutagenicity (Category 1B), Aquatic Chronic 2, Aspiration Toxicity 1, Carcinogenic (Category 1B)	H226, H350 H304, H311
Other inert components	79.40 – 84.40	-------	None	None

SECTION 4: First aid measures

4.1Description of first aid measures

General advice	:	Have the product container, label or Material Safety Data Sheet with you when calling the GSP Crop Science Limited emergency number, a poison control center or physician, or going for treatment.

If inhaled	:	If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
In case of skin contact	:	Immediately flush skin with much water while removing contaminated clothing and footwear. Wash with water and soap. See physician if any symptom develops.
In case of eye contact	:	Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. See physician if irritation persists.
If swallowed	:	If swallowed, seek medical advice immediately and show this container or label. Do Not induce vomiting.
4.2 Most important symptoms and effects, both acute and delayed		
Symptoms	:	To our knowledge, signs of adverse effects in humans have not been reported. When the active ingredient was fed to animals, only non-specific symptoms were seen.
4.3 Indication of any immediate medical attention and special treatment needed		
Treatment	:	There is no specific antidote available. Treat symptomatically.
SECTION 5: Firefighting measures		
5.1 Extinguishing media		
Suitable Extinguishing media	:	Extinguishing media - small fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Extinguishing media - large fires Alcohol-resistant foam or Water spray. Do not use a solid water stream as it may scatter and spread fire.
5.2 Specific hazards arising from the chemical		
Specific hazards during fire-fighting	:	As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health.
5.3 Special protective actions for fire-fighters		
Advice for firefighters	:	In the event of fire, do not breathe fumes. Do not attempt to take action without suitable protective equipment, self-contained breathing apparatus & complete protective clothing.

Further information	:	Do not allow run-off from fire-fighting to enter drains or water courses.
SECTION 6: Accidental release measures		
6.1 Personal precautions, protective equipment and emergency procedures		
Personal precautions	:	Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing fume. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from spill/ fumes. For emergency responders: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2 Environmental precautions		
Environmental precautions	:	Do not flush into surface water or sanitary sewer system.
6.3 Methods and material for containment and cleaning up		
Handling and storage	:	Store and dispose of according to local regulations.
Methods for cleaning up	:	Collect spilled liquid with non-combustible absorbent material. Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents.
SECTION 7: Handling and storage		
7.1 Precautions for safe handling		
Advice on safe handling	:	No special protective measures against fire required. Avoid contact with skin and eyes. Hygiene measures: Do not eat, drink, or smoke when using this product. Always wash hands after handling the product.
7.2 Conditions for safe storage, including any incompatibilities.		
Requirements for storage areas and containers	:	Keep in a well-ventilated room. Store in original tightly closed container. Keep out of reach of the children. Do not contaminate water, food, or feed by storage or disposal.
SECTION 8: Exposure controls/personal protection		
8.1 Control parameters		
Occupational Exposure limit values	:	No data available
Biological limit values	:	No data available
8.2 Appropriate engineering controls		
Engineering measures	:	Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.
8.3 Individual protection measures		
Eye Protection	:	Wear safety spectacles or eye protection.
Hand Protection	:	Protective gloves made of plastic or rubber.

		Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin and body protection	:	Wear protective clothing, including boots, gloves, lab coat, apron or cover all, as appropriate to avoid skin contact.
Respiratory Protection	:	A particulate filter respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.
SECTION 9: Physical and chemical properties		
i. Appearance (physical state, colour, etc)	:	White to off-white viscous liquid
ii. Odor	:	Aromatic
Iii. Odor threshold	:	No data available
iv. pH	:	5 to 8 (1% Aqueous solution)
v. Melting point/freezing point	:	No data available
vi. Initial boiling point and boiling range	:	No data available
vii. Flash point	:	>100 degree Celsius
viii. Evaporation rate	:	No data available
ix. Flammability (solid, gas)	:	No data available
x. Upper/lower flammability or explosive limits	:	No data available
xi. Vapor pressure	:	1.5 x 10(-9) mmHg @ 20°C
xii. Vapor density	:	No data available
xiii. Relative Density	:	1.00 – 1.10 g/mL
xiv. Solubility(ies)	:	No data available
xv. Partition coefficient: n-octanol/water	:	No data available
xvi. Auto-ignition temperature	:	640 °C
xvii. Decomposition temperature	:	No data available
xviii. Viscosity	:	No data available
xix. Others	:	No data available
SECTION 10: Stability and reactivity		
10.1 Reactivity	:	No hazardous reactions by normal handling and storage according to provisions.
10.2 Chemical stability	:	The product is stable when used in normal conditions
10.3 Possibility of hazardous reactions	:	No hazardous reactions by normal handling and storage according to provisions.

10.4 Conditions to avoid	:	No decomposition if used as directed.
10.5 Incompatible materials	:	No substances are known which lead to the formation of hazardous substances or thermal reactions.
10.6 Hazardous decomposition products	:	Combustion or thermal decomposition will evolve toxic and irritant vapours.

SECTION 11:Toxicological information

11.1 Acute Toxicity

Exposure	Unit	Value	Hazard Category
Oral	LD_{50} (Rat) mg/kg body wight	310 mg/kg	Category 2
Dermal	LD_{50} (Rat) mg/kg body wight	> 2,000 mg/kg	Category 3
Inhalation	LC_{50} (Rat) mg/kg body wight	> 3.12 g/l , 4 h	Unclassified
Skin corrosion/irritation	Rabbit	Moderate Irritant	Unclassified
Serious eye damage irritation	Rabbit	Mildly irritating	Unclassified
Skin sensitization	Buehler Test Guinea pig	Skin sensitizer	Unclassified

11.2 Germ cell mutagenicity	Lambda-Cyhalothrin	Did not show mutagenic or teratogenic effects in animal experiments. Not classified.
11.3 Carcinogenicity	Lambda-Cyhalothrin	No treatment-related tumours in rats or mice.
11.4 Reproductive toxicity	Lambda-Cyhalothrin	Not a developmental or reproductive toxicant.

SECTION 12: Ecological information

12.1 Aquatic Toxicity

Organism	Species	Unit	Value	Hazard Category
Toxicity to fish	Rainbow trout	LC_{50} (96 hrs) mg/L	0.20 mg/l	Category 1
Toxicity to aquatic invertebrates	Water flea	EC_{50} (48 hrs) mg/L	0.40 mg/l	Category 1
Bird	Mallard Duck	LD_{50} oral	> 3950 mg/kg	Category 3

12.2 Persistence and degradability

Lambda Cyhalothrin	:	Not readily biodegradable.

12.3 Bio accumulative potential

Lambda Cyhalothrin	:	No Data available

12.4 Mobility in soil

Lambda Cyhalothrin	:	Not persistent in soil or water. Immobile in soil. Sinks in water (after 24 h).

12.5 Other adverse effects

Other information	:	Classification of the product is based on the summation of the concentrations of classified components.

SECTION 13 : Disposal considerations		
Waste treatment methods	:	Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.
Contaminated packaging	:	Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14: Transport information		
14.1 UN Number		
ADR/RID: UN 3082	**IMDG: UN 3082**	**IATA: UN 3082**
14.2 UN Proper Shipping Name		
ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lambda Cyhalothrin mixture)	IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lambda Cyhalothrin mixture)	IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lambda Cyhalothrin mixture)
14.3 Transport Hazard class(es)		
ADR/RID: 9	IMDG: 9	IATA: 9
14.4 Packing group, if applicable		
ADR/RID: III	IMDG: III	IATA: III
14.5 Environmental hazards Marine Pollutant		
ADR/RID: Yes	IMDG: Yes	IATA: Yes
14.6 Special precautions for user		
None	None	None
14.7 Transport in bulk according to IMO instruments		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not Applicable

SECTION 15: Regulatory information		
Safety, health and environmental regulations specific for the product in question.		
Full text of H-Statements	:	H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H351 Suspected of causing cancer. H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long lasting effects.
REACH - Candidate List of Substances of Very HighConcern for Authorisation	:	No
Regulation (EC) No 1005/2009 on substances thatdeplete the ozone layer	:	No
Regulation (EC) No 850/2004 on persistent organicpollutants	:	No
SECTION 16 : OTHER INFORMATION		
16.1 Information on revision Version 3 of SDS updated on 01.04.2025 for aligning it as per GHS format.		
16.2 Abbreviations and acronyms		
GHS	:	Globally Harmonized System
CAS	:	Chemical Abstracts Service
LC_{50}	:	Lethal Concentration 50%
LD_{50}	:	Lethal Dose 50%
EC_{50}	:	Effective Concentration 50%
PBT	:	Persistent, Bioaccumulative and Toxic substance
vPvB	:	Very Persistent and Very Bioaccumulative
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
MARPOL	:	International Convention for the Prevention of Pollution from Ships
STOT	:	Specific target organ toxicity
16.3 References		
• IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home		

- HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- ECHA - European Chemicals Agency, website: https://echa.europa.eu/
- The Pesticide Manual, British Crop Production Council
- Unpublished reports – GSP Crop Science Limited, India.

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.