Dow AgroSciences

Material Safety Data Sheet

DOW AGROSCIENCES INDIA PVT. LTD.

Product name: GALLANT™ 10.5 EC Herbicide

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DOW AGROSCIENCES INDIA PVT. LTD. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: GALLANT™ 10.5 EC Herbicide

Recommended use of the chemical and restrictions on use
Identified uses: Plant Protection Product

COMPANY IDENTIFICATION
DOW AGROSCIENCES INDIA PVT. LTD.
1ST FLOOR, BLOCK B, 02, GODREJ IT PARK
GODREJ BUSINESS DISTRICT
PIROJSHANAGAR, L.B.S MARG.,
400079 VIKHROLI, MUMBAI
INDIA

Customer Information Number: (91) 22-6674-1500
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: (91-2356-272046)
Local Emergency Contact: 22-6674-1800

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

CASRN / EC-No. / Index-No.	Concentration	Component	Classification
CASRN 72619-32-0 **EC-No.** 406-250-0 **Index-No.** 607-335-00-7	10.5%	methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy) propionate	Xn - R22 N - R50 - R53
CASRN 69029-39-6 **EC-No.** Not available **Index-No.** –	> 40.0 - < 50.0 %	Alkylphenol alkoxylate	N - R51/53

CASRN 64742-94-5 **EC-No.** 265-198-5 **Index-No.** 649-424-00-3	> 20.0 - < 30.0 %	solvent naphtha (petroleum), heavy arom.	Xn - R65 R66 R67 N - R51/53
CASRN 95-63-6 **EC-No.** 202-436-9 **Index-No.** 601-043-00-3	< 5.0 %	1,2,4-trimethylbenzene	R10 Xn - R20 - R65 Xi - R36/37/38 N - R51 - R53
CASRN 108-67-8 **EC-No.** 203-604-4 **Index-No.** 601-025-00-5	< 1.0 %	Mesitylene; 1,3,5-trimethylbenzene	R10 Xi - R37 Xn - R65 N - R51 - R53
CASRN 91-20-3 **EC-No.** 202-049-5 **Index-No.** 601-052-00-2	< 1.0 %	Naphthalene	Carc.Cat.3 - R40 Xn - R22 N - R50 - R53

The full text of each R phrase is listed in section 16.

3. HAZARDS IDENTIFICATION

Hazard classification
Classified as hazardous according to regulatory criteria.
Irritating to eyes and skin.
May cause sensitisation by skin contact.
Vapours may cause drowsiness and dizziness.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other hazards
No data available

4. FIRST AID MEASURES

Description of first aid measures
General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

Skin contact: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly. Suitable emergency safety shower facility should be available in work area.

Eye contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be immediately available.

Ingestion: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed
Notes to physician: Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment. Repeated excessive exposure may aggravate preexisting lung disease. Skin contact may aggravate preexisting dermatitis.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. General purpose synthetic foams (including AFFF type) or protein foams are preferred if available. Alcohol resistant foams (ATC type) may function.

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture
Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen fluoride. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

Advice for firefighters
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor

nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children. Keep away from heat, sparks and flame. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

Storage stability
To maintain product quality, recommended storage temperature is > -10 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Alkylphenol alkoxylate	Dow IHG	TWA	2 mg/m3
solvent naphtha (petroleum), heavy arom.	Dow IHG	TWA	100 mg/m3
	Dow IHG	STEL	300 mg/m3
1,2,4-trimethylbenzene	ACGIH	TWA	25 ppm
	ACGIH	TWA	25 ppm
Mesitylene; 1,3,5-trimethylbenzene	ACGIH	TWA	25 ppm
Naphthalene	ACGIH	TWA	10 ppm
	ACGIH	TWA	SKIN
	Dow IHG	TWA	10 ppm
	Dow IHG	TWA	SKIN
	Dow IHG	STEL	15 ppm
	Dow IHG	STEL	SKIN
	IN OEL	TWA	50 mg/m3 10 ppm
	IN OEL	STEL	75 mg/m3 15 ppm

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

Skin protection

Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Styrene/butadiene rubber. Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses

less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Liquid.
Color	Brown
Odor	Aromatic
Odor Threshold	No test data available
pH	4.45 1% *pH Electrode*
Melting point/range	Not applicable
Freezing point	No test data available
Boiling point (760 mmHg)	No test data available
Flash point	**closed cup** >76 °C *EC Method A9*
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	No
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	No test data available
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	No test data available
Water solubility	emulsifiable
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	> 400 °C
Decomposition temperature	No test data available
Dynamic Viscosity	85 mPa.s
Kinematic Viscosity	No data available
Explosive properties	No

Oxidizing properties	No data available
Liquid Density	1.028 g/cm3 at 20 °C *EU-AM-91-33*
Molecular weight	No data available
Surface tension	29 mN/m at25 °C *EC Method A5*

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Thermally stable at typical use temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Avoid static discharge.

Incompatible materials: Avoid contact with: Acids. Bases. Oxidizers.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Hydrogen fluoride. Nitrogen oxides. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity
Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product:
LD50, Rat, female, > 5,000 mg/kg

Acute dermal toxicity
Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:
LD50, Rat, male and female, > 5,000 mg/kg

Acute inhalation toxicity
Prolonged excessive exposure to mist may cause adverse effects. May cause central nervous system effects. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs.

As product:
LC50, Rat, male and female, 4 Hour, > 5.36 mg/l No deaths occurred at this concentration.

Skin corrosion/irritation
Brief contact may cause slight skin irritation with local redness.
May cause drying and flaking of the skin.

Serious eye damage/eye irritation
May cause moderate eye irritation.
Corneal injury is unlikely.

Sensitization
Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)
May cause drowsiness or dizziness.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
In animals, effects have been reported on the following organs:
Liver.

Carcinogenicity
For the active ingredient(s): Haloxyfop did not cause cancer in laboratory rats; however, there was a slightly increased incidence of malignant liver tumors in female mice in a lifetime dietary feeding study.
Not Classified

Teratogenicity
For similar active ingredient(s). Haloxyfop did not cause cancer in laboratory rats; however, there was a slightly increased incidence of malignant liver tumors in female mice in a lifetime dietary feeding study. Not Classified

Reproductive toxicity
For similar active ingredient(s). Haloxyfop did not cause cancer in laboratory rats; however, there was a slightly increased incidence of malignant liver tumors in female mice in a lifetime dietary feeding study. Not Classified

Mutagenicity
For the active ingredient(s): In vitro genetic toxicity studies were negative.

Aspiration Hazard
Based on physical properties, not likely to be an aspiration hazard. No aspiration toxicity classification

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Ecotoxicity

Acute toxicity to fish
Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 3.85 mg/l

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, 12.6 mg/l

Acute toxicity to algae/aquatic plants
ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate inhibition, > 100 mg/l

Chronic aquatic toxicity
Chronic toxicity to aquatic invertebrates
NOEC, Daphnia magna (Water flea), semi-static test, 21 d, growth, 4 mg/l

Toxicity to Above Ground Organisms
Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

oral LD50, Colinus virginianus (Bobwhite quail), mortality, > 2000mg/kg bodyweight.

oral LD50, Apis mellifera (bees), 48 Hour, mortality, 894micrograms/bee

contact LD50, Apis mellifera (bees), 48 Hour, mortality, 524micrograms/bee

Toxicity to soil-dwelling organisms
LC50, Eisenia fetida (earthworms), 14 d, survival, 369.8 mg/kg

Persistence and degradability

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy) propionate
Biodegradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.
10-day Window: Fail
Biodegradation: 8 - 11 %
Exposure time: 28 d
Method: OECD Test Guideline 301D or Equivalent

Stability in Water (1/2-life)
Hydrolysis, half-life, < 24 Hour, pH 9

Alkylphenol alkoxylate
Biodegradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

solvent naphtha (petroleum), heavy arom.
Biodegradability: Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).

1,2,4-trimethylbenzene

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.
10-day Window: Not applicable
Biodegradation: 4 - 18 %
Exposure time: 28 d
Method: OECD Test Guideline 301C or Equivalent

Mesitylene; 1,3,5-trimethylbenzene

Biodegradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.
10-day Window: Not applicable
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301C or Equivalent
10-day Window: Not applicable
Biodegradation: 50 %
Exposure time: 4.4 d
Method: Calculated.

Naphthalene

Biodegradability: Material is expected to be readily biodegradable.

Bioaccumulative potential

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy) propionate

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
Partition coefficient: n-octanol/water(log Pow): 0.63 - 4.6 Measured
Bioconcentration factor (BCF): 262 Estimated.

Alkylphenol alkoxylate

Bioaccumulation: No bioconcentration is expected because of the relatively high water solubility. May foam in water.

solvent naphtha (petroleum), heavy arom.

Bioaccumulation: For similar material(s): Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

1,2,4-trimethylbenzene

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
Partition coefficient: n-octanol/water(log Pow): 3.63 Measured
Bioconcentration factor (BCF): 33 - 275 Cyprinus carpio (Carp) 56 d Measured

Mesitylene; 1,3,5-trimethylbenzene

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
Partition coefficient: n-octanol/water(log Pow): 3.42 Measured
Bioconcentration factor (BCF): 161 Pimephales promelas (fathead minnow) Measured

Naphthalene

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
Partition coefficient: n-octanol/water(log Pow): 3.3 Measured
Bioconcentration factor (BCF): 40 - 300 Fish 28 d Measured

Mobility in Soil

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy) propionate
Potential for mobility in soil is medium (Koc between 150 and 500).
Partition coefficient (Koc): 17800 Estimated.

Alkylphenol alkoxylate
No data available.

solvent naphtha (petroleum), heavy arom.
No relevant data found.

1,2,4-trimethylbenzene
Potential for mobility in soil is low (Koc between 500 and 2000).
Partition coefficient (Koc): 720 Estimated.

Mesitylene; 1,3,5-trimethylbenzene
Potential for mobility in soil is low (Koc between 500 and 2000).
Partition coefficient (Koc): 741.65 Estimated.

Naphthalene
Potential for mobility in soil is medium (Koc between 150 and 500).
Partition coefficient (Koc): 240 - 1300 Measured

Results of PBT and vPvB assessment

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy) propionate
This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Alkylphenol alkoxylate
This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

solvent naphtha (petroleum), heavy arom.
This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

1,2,4-trimethylbenzene
This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Mesitylene; 1,3,5-trimethylbenzene
This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Naphthalene
This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Other adverse effects

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy) propionate
This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Alkylphenol alkoxylate
This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

solvent naphtha (petroleum), heavy arom.
This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

1,2,4-trimethylbenzene
This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Mesitylene; 1,3,5-trimethylbenzene
This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Naphthalene
This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

Disposal methods: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Haloxyfop-R methyl)
UN number	UN 3082
Class	9
Packing group	III
Environmental hazards	Haloxyfop-R methyl

Classification for SEA transport (IMO-IMDG):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Haloxyfop-R methyl)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Haloxyfop-R methyl
Transport in bulk	Consult IMO regulations before transporting ocean bulk

according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

Classification for AIR transport (IATA/ICAO):

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(Haloxyfop-R methyl)
UN number	UN 3082
Class	9
Packing group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

Label
Classification and labeling have been performed according to regulations.

Hazard symbol and Indication of danger

Xi	Irritant
N	Dangerous for the environment

R-phrase(s)

R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.
R67	Vapours may cause drowsiness and dizziness.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35	This material and its container must be disposed of in a safe way.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S57	Use appropriate containment to avoid environmental contamination.

To avoid risks to man and the environment, comply with the instructions for use.

16. OTHER INFORMATION

Full text of the R-phrases given in Section 2

R10	Flammable.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R40	Limited evidence of a carcinogenic effect.
R50	Very toxic to aquatic organisms.
R51	Toxic to aquatic organisms.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Revision

Identification Number: 101187866 / A147 / Issue Date: 02.05.2016 / Version: 3.0
DAS Code: EF-1400
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
Dow IHG	Dow Industrial Hygiene Guideline
IN OEL	India. Permissible levels of certain chemical substances in work environment.
SKIN	Absorbed via skin
STEL	Short term exposure limit
TWA	Time weighted average

DOW AGROSCIENCES INDIA PVT. LTD. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.