

SAFETY DATA SHEET



Recruit® HD

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	05/16/2022	800080002835	Date of first issue: 05/16/2022

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. IDENTIFICATION

Product name : Recruit® HD

Manufacturer or supplier's details

COMPANY IDENTIFICATION

Manufacturer/importer : CORTEVA AGRISCIENCE LLC
9330 ZIONSVILLE RD
INDIANAPOLIS, IN, 46268-1053
UNITED STATES

Customer Information : 800-992-5994

Number

E-mail address : customerinformation@corteva.com

Emergency telephone : INFOTRAC (CONTRACT 84224).
800-992-5994 or 317-337-6009

Recommended use of the chemical and restrictions on use

Recommended use : End use insecticide product

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity : Category 2

Effects on or via lactation

GHS label elements

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Hazard pictograms

:



Signal Word

: Warning

Hazard Statements

: H361 Suspected of damaging fertility or the unborn child.
H362 May cause harm to breast-fed children.

Precautionary Statements

: **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust.
P263 Avoid contact during pregnancy/ while nursing.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Noviflumuron	121451-02-3	0.5
Cellulose	9004-34-6	≥ 60 - < 70
Octadecanoic acid, calcium salt	1592-23-0	≥ 1 - < 3
Balance	Not Assigned	> 20

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

If inhaled : 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

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- mask etc). Call a poison control center or doctor for treatment advice.
- In case of skin contact : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- In case of eye contact : Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.
- If swallowed : No emergency medical treatment necessary.
- Most important symptoms and effects, both acute and delayed : None known.
- Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : 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.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health. Do not allow run-off from fire fighting to enter drains or water courses.
- 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:
Carbon oxides
- Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.

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- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid dust formation.
Avoid breathing dust.
Use personal protective equipment.
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
- Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
Prevent from entering into soil, ditches, sewers, undewater. See Section 12, Ecological Information.
- Methods and materials for containment and cleaning up : Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in.
Pick up and arrange disposal without creating dust.
Recovered material should be stored in a vented container.
The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to over-pressurization of the container.
Keep in suitable, closed containers for disposal.
Sweep up or vacuum up spillage and collect in suitable container for disposal.
See Section 13, Disposal Considerations, for additional information.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid formation of respirable particles.
Do not breathe vapors/dust.
Do not smoke.
Handle in accordance with good industrial hygiene and safety practice.
Avoid exposure - obtain special instructions before use.
Smoking, eating and drinking should be prohibited in the application area.
Avoid inhalation of vapor or mist.
Do not swallow.
Avoid contact with skin and eyes.

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Avoid contact with eyes.
Avoid prolonged or repeated contact with skin.
Take care to prevent spills, waste and minimize release to the environment.
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Conditions for safe storage : Store in a closed container.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep in properly labeled containers.
Store in accordance with the particular national regulations.

Materials to avoid : Strong oxidizing agents

Packaging material : Unsuitable material: None known.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Cellulose	9004-34-6	TWA	10 mg/m3	ACGIH
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total dust)	15 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
Octadecanoic acid, calcium salt	1592-23-0	TWA (Inhalable particulate matter)	10 mg/m3	ACGIH
		TWA (Respirable particulate matter)	3 mg/m3	ACGIH
Noviflumuron	121451-02-3	TWA	0.1 mg/m3	Dow IHG

Engineering measures : Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
Local exhaust ventilation may be necessary for some operations.

Personal protective equipment

Respiratory protection : Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

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If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, in dusty atmospheres, use an approved particulate respirator.

Hand protection

Remarks : Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Polyvinyl chloride ("PVC" or "vinyl"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). 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.

Eye protection : Use safety glasses (with side shields).
If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Skin and body protection : Wear clean, body-covering clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Granules.
Color	: Tan
Odor	: Sweet
Odor Threshold	: No data available
pH	: 6.36 (75.7 °F / 24.3 °C) Concentration: 1 % Method: pH Electrode
Melting point/range	: No data available
Freezing point	: Not applicable
Boiling point/boiling range	: Not applicable
Flash point	: Not applicable

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Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapor pressure	:	Not applicable
Relative vapor density	:	Not applicable
Bulk density	:	0.54 g/mL (73.6 °F / 23.1 °C)
Solubility(ies) Water solubility	:	No data available
Autoignition temperature	:	No data available
Viscosity Viscosity, dynamic	:	Not applicable
Explosive properties	:	No
Oxidizing properties	:	No significant increase (>5C) in temperature.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	No decomposition if stored and applied as directed. Stable under normal conditions.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned. None known.
Conditions to avoid	:	None known.
Incompatible materials	:	None.
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 oxides

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SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Components:****Noviflumuron:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Acute inhalation toxicity : Remarks: No adverse effects are anticipated from single exposure to dust.
Based on the available data, respiratory irritation was not observed.

LC50 (Rat, male and female): > 5.24 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5,000 mg/kg

Cellulose:

Acute oral toxicity : LD50 (Rat): > 3,160 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Octadecanoic acid, calcium salt:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute oral toxicity

Respiratory or skin sensitization**Components:****Noviflumuron:**

Remarks : Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:
No relevant data found.

Germ cell mutagenicity**Components:****Noviflumuron:**

Germ cell mutagenicity - Assessment : In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

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Cellulose:

Germ cell mutagenicity - Assessment : The data presented are for the following material:, Methyl cellulose., In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

Octadecanoic acid, calcium salt:

Germ cell mutagenicity - Assessment : In vitro genetic toxicity studies were negative.

Carcinogenicity**Components:****Noviflumuron:**

Carcinogenicity - Assessment : Has caused cancer in laboratory animals., Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

Cellulose:

Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity**Components:****Noviflumuron:**

Reproductive toxicity - Assessment : Suspected human reproductive toxicant, Studies indicating a hazard to babies during the lactation period

In animal studies, has been shown to interfere with reproduction., In animal studies, has been shown to interfere with fertility.
Did not cause birth defects or any other fetal effects in laboratory animals.

Cellulose:

Reproductive toxicity - Assessment : In animal studies, cellulose has been shown to interfere with fertility and reproduction as a result of nutritional deficiencies associated with extremely high dietary concentrations of cellulose.

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Did not cause birth defects or any other fetal effects in laboratory animals.

Octadecanoic acid, calcium salt:

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction. No relevant data found.

STOT-single exposure**Components:****Noviflumuron:**

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Cellulose:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Octadecanoic acid, calcium salt:

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

Repeated dose toxicity**Components:****Noviflumuron:**

Remarks : Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Cellulose:

Remarks : Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Octadecanoic acid, calcium salt:

Remarks : Repeated exposures to dusts of this material are not anticipated to result in systemic toxicity or permanent lung injury; however, excessive exposures may cause less severe respiratory effects.

Aspiration toxicity**Components:****Noviflumuron:**

Based on physical properties, not likely to be an aspiration hazard.

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Cellulose:

Based on physical properties, not likely to be an aspiration hazard.

Octadecanoic acid, calcium salt:

Based on available information, aspiration hazard could not be determined.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Noviflumuron:**

- | | | |
|---|---|--|
| Toxicity to fish | : | <p>Remarks: Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).</p> <p>LC50 (Lepomis macrochirus (Bluegill sunfish)): > 2.0 mg/l
 Exposure time: 96 h
 Test Type: semi-static test
 Method: OECD Test Guideline 203 or Equivalent</p> <p>LC50 (Oncorhynchus mykiss (rainbow trout)): > 2.00 mg/l
 Exposure time: 96 h
 Test Type: semi-static test
 Method: OECD Test Guideline 203 or Equivalent</p> |
| Toxicity to daphnia and other aquatic invertebrates | : | <p>EC50 (Daphnia magna (Water flea)): 0.0003 mg/l
 Exposure time: 48 h
 Test Type: flow-through test
 Method: OECD Test Guideline 202 or Equivalent</p> |
| Toxicity to algae/aquatic plants | : | <p>ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0.75 mg/l
 End point: Growth rate inhibition
 Exposure time: 72 h</p> |
| M-Factor (Acute aquatic toxicity) | : | 100 |
| M-Factor (Chronic aquatic toxicity) | : | 100 |
| Toxicity to microorganisms | : | <p>EC50 (activated sludge): > 1.9 mg/l
 Exposure time: 3 h
 Method: OECD 209 Test</p> |
| Toxicity to soil dwelling organisms | : | <p>LC50 (Eisenia fetida (earthworms)): > 10,000 mg/kg
 Exposure time: 14 d
 GLP: yes</p> |
| Toxicity to terrestrial organisms | : | <p>Remarks: Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg)., Material is slightly toxic to birds</p> |

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on a dietary basis (LC50 between 1001 and 5000 ppm).

oral LD50 (*Colinus virginianus* (Bobwhite quail)): > 2,000 mg/kg
Exposure time: 14 d
GLP: yes

dietary LC50 (*Colinus virginianus* (Bobwhite quail)): 4,100 mg/kg
Exposure time: 10 d
GLP: yes

oral LD50 (*Apis mellifera* (bees)): > 100 micrograms/bee
Exposure time: 48 h

contact LD50 (*Apis mellifera* (bees)): > 100 micrograms/bee
Exposure time: 48 h
GLP: yes

Cellulose:

Toxicity to fish : LC50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (Algae): > 100 mg/l
End point: Growth rate inhibition
Exposure time: 96 h

Toxicity to microorganisms : LC50 (Bacteria): > 100 mg/l

Octadecanoic acid, calcium salt:

Toxicity to fish : Remarks: The LC50 value is above the water solubility.
The EC50 value is above the water solubility.

LC50 (*Oryzias latipes* (Japanese medaka)): estimated > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203 or Equivalent

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): estimated > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EyC50 (*Pseudokirchneriella subcapitata* (algae)): estimated > 100 mg/l
End point: Cell yield inhibition
Exposure time: 72 h
Method: OECD Test Guideline 201

ErC50 (*Pseudokirchneriella subcapitata* (algae)): estimated > 100 mg/l
End point: Growth rate
Exposure time: 72 h
Method: OECD Test Guideline 201

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Persistence and degradability**Components:****Noviflumuron:**

ThOD	:	1.03 kg/kg
Photodegradation	:	Rate constant: 8.95E-12 cm ³ /s Method: Estimated.

Cellulose:

Biodegradability	:	Remarks: Biodegradation rate may increase in soil and/or water with acclimation.
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ThOD	:	1.18 kg/kg
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Octadecanoic acid, calcium salt:

Biodegradability	:	Remarks: Material is expected to be readily biodegradable.
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ThOD	:	2.74 kg/kg
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Bioaccumulative potential**Components:****Noviflumuron:**

Partition coefficient: n-octanol/water	:	
		log Pow: 4.94 Method: Estimated. Remarks: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

Cellulose:

Partition coefficient: n-octanol/water	:	Remarks: No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).
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Octadecanoic acid, calcium salt:

Partition coefficient: n-octanol/water	:	Remarks: No data available for this product.
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Balance:

Partition coefficient: n-octanol/water	:	Remarks: No relevant data found.
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Mobility in soil**Components:****Noviflumuron:**

Distribution among environmental compartments : Remarks: Expected to be relatively immobile in soil (K_{oc} > 5000).

Cellulose:

Distribution among environmental compartments : Remarks: No data available.

Octadecanoic acid, calcium salt:

Distribution among environmental compartments : Remarks: No data available.

Balance:

Distribution among environmental compartments : Remarks: No relevant data found.

Other adverse effects**Components:****Noviflumuron:**

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Cellulose:

Results of PBT and vPvB assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Octadecanoic acid, calcium salt:

Ozone-Depletion Potential : Regulation: (Update: 05/16/2011)
Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Balance:

Results of PBT and vPvB assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

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SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : 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.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number	: UN 3077
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Noviflumuron)
Class	: 9
Packing group	: III
Labels	: 9

IATA-DGR

UN/ID No.	: UN 3077
Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (Noviflumuron)
Class	: 9
Packing group	: III
Labels	: Miscellaneous
Packing instruction (cargo aircraft)	: 956
Packing instruction (passenger aircraft)	: 956

IMDG-Code

UN number	: UN 3077
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Noviflumuron)
Class	: 9
Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F
Marine pollutant	: yes
Remarks	: Stowage category A

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

Not regulated as a dangerous good

Further information

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Reproductive toxicity

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations**Pennsylvania Right To Know**

Cellulose

9004-34-6

The ingredients of this product are reported in the following inventories:

TSCA : Product contains substance(s) not listed on TSCA inventory.

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number : 62719-608

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

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SECTION 16. OTHER INFORMATION

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
Dow IHG	:	Dow Industrial Hygiene Guideline
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
Dow IHG / TWA	:	Time Weighted Average (TWA):
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 05/16/2022

SAFETY DATA SHEET



Recruit® HD

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	05/16/2022	800080002835	Date of first issue: 05/16/2022

Product code: GF-2024

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