

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : Starbar Exhalt WDG Insect Growth Regulator
 Synonyms : EPA Reg. No.: 89459-107, 100542698, 100542699, RF2285 WDG

1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.
 Restrictions on use : Keep out of reach of children. Avoid contact with eyes, skin or clothing. Do not use or store near heat or open flame.

1.3. Supplier

Central Garden & Pet
 1501 E. Woodfield Road, Suite 200W
 Schaumburg, IL 60173 - United States
 www.starbarproducts.com

1.4. Emergency telephone number

Emergency number : 1-800-347-8272
 1-800-424-9300 - CHEMTREC
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2 Causes skin irritation
 Serious eye damage/eye irritation Category 2B Causes eye irritation
 Combustible Dust May form combustible dust concentrations in air

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



GHS07

Signal word (GHS US) : Warning
 Hazard statements (GHS US) : May form combustible dust concentrations in air
 Causes skin irritation
 Causes eye irritation
 Precautionary statements (GHS US) : Wash hands, forearms and face thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF ON SKIN: Wash with plenty of water.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If skin irritation occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Take off contaminated clothing and wash it before reuse.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This pesticide is toxic to freshwater and estuarine/marine invertebrates. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

2.4. Unknown acute toxicity (GHS US)

Not applicable

Starbar Exhalt WDG Insect Growth Regulator

Safety Data Sheet

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Novaluron	(CAS-No.) 116714-46-6	4
Proprietary disaccharide	(CAS-No.) N/A	90 – 95
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

Comments : * The specific chemical identity and/or exact percentage (concentration) has been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Causes skin irritation.
- Symptoms/effects after eye contact : Causes mild eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Carbon dioxide. Dry chemical. Foam.
- Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

- Explosion hazard : Dust cloud can be ignited by a spark. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
- Reactivity : This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Combustible dust - use low-pressure medium fog streams to avoid dust clouds. Ventilate closed spaces before entering. Eliminate ignition sources. Move containers away from the fire area if this can be done without risk.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid contact with skin, eyes and clothing. Do not breathe dust. Keep upwind. No flames, no sparks. Eliminate all sources of ignition. Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Positive pressure self-contained breathing apparatus (SCBA).
- Emergency procedures : Use grounded electrical/mechanical equipment. Contain spill and monitor for excessive dust accumulation. Turn off electric power to area. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Evacuate unnecessary personnel.

Starbar Exhalt WDG Insect Growth Regulator

Safety Data Sheet

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Use appropriate PPE. Sweep or scoop spills, dispose of any unusable material in approved landfill. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used. Avoid dust formation.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid dust formation. Avoid contact with skin, eyes and clothing. Do not use near oxidizing agents. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Avoid breathing dust. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

Storage conditions : Store in a well-ventilated place. Do not store near heat or open flame. Keep container closed when not in use. Store in a cool dry place. Do not store near oxidizing agents. Avoid direct sunlight. Do not store at temperatures exceeding 95 °F (35 °C).

Incompatible materials : Strong oxidizers. Strong acids. Strong bases. Heat, sparks, open flame.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Proprietary disaccharide (N/A)		
ACGIH	ACGIH OEL TWA	10 mg/m ³
ACGIH	Remark (ACGIH)	Dental erosion
OSHA	OSHA PEL TWA [1]	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
NIOSH	NIOSH REL TWA	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)

8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.

Starbar Exhalt WDG Insect Growth Regulator

Safety Data Sheet



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: White to off-white granular solid
Color	: White to off-white
Odor	: Weak, neutral
Odor threshold	: No data available
pH	: 7.16 (1% aq. sol'n)
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.76 g/cm ³ (tapped)
Solubility	: >90% water soluble, balance is water dispersible
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosion limits	: Not applicable
Explosive properties	: May form combustible dust concentrations in the air
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur. May form combustible dust concentrations in the air.

10.4. Conditions to avoid

Avoid dust formation. Heat. No flames, no sparks. Eliminate all sources of ignition. Avoid humid, moist or wet conditions.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Decomposes upon heating to produce toxic vapors/gases which include carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Starbar Exhalt WDG Insect Growth Regulator

Safety Data Sheet

Starbar Exhalt WDG Insect Growth Regulator	
LD50 oral rat	> 5000 mg/kg (female rats)
LC50 Inhalation - Rat	> 8.3 mg/l/4h

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Exposure to dust may cause mild respiratory irritation.

Skin

Acute : Causes skin irritation.

Eye

Acute : Causes mild eye irritation.

Ingestion

Acute : Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Mutagenicity : Novaluron is not a mutagen.

Carcinogenicity : Novaluron is not classified as a carcinogen.

Reproductive Effects : Novaluron is not teratogenic in animal experiments.

SECTION 12: Ecological information

12.1. Toxicity

Novaluron (116714-46-6)	
LC50 Acute fish 1	> 1 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute crustacea 1	0.000279 mg/l (Exposure time: 48h - Daphnia magna)
NOEC (acute)	> 9.68 mg/l (Exposure time: 72h - Algae)

12.2. Persistence and degradability

Novaluron (116714-46-6)	
Persistence and degradability	Novaluron: Half life = 68-76 days in soil.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Other adverse effects

Starbar Exhalt WDG Insect Growth Regulator	
Ecological Fate	This pesticide is toxic to freshwater and estuarine/marine invertebrates.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Starbar Exhalt WDG Insect Growth Regulator

Safety Data Sheet

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	UN3077	Packaging greater than 5 kg: Environmentally Hazardous Substance, Solid, N.O.S. (Novaluron)	9	III	Marine pollutant
IATA	UN3077	Packaging greater than 5 kg: Environmentally Hazardous Substance, Solid, N.O.S. (Novaluron)	9	III	Acute aquatic toxicity

SECTION 15: Regulatory information

15.1. US Federal regulations

EPA Labelling	
EPA Registration Number	89459-107
This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Hazard statements	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
FIFRA First aid	IF IN EYES: Hold eye 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 eye. Call a poison control center or doctor for treatment advice.
FIFRA Environmental hazards	This pesticide is toxic to freshwater and estuarine/marine invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff can be hazardous to aquatic organisms in water adjacent to treated areas. This product is intended for use only in sites listed on this label. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.
FIFRA Physical hazards	Do not mix or allow to contact with an oxidizing agent. Hazardous chemical reaction may occur.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Issue date : 16 April 2021
Revision date : 14 June 2021

Indication of changes:
Sec. 1: Material name change.

SDS US (GHS HazCom 2012) - CGP

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