

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : INVADE CNL

1.2. Recommended use and restrictions on use

1.3. Supplier

INNICTIS® CROP CARE, LLC
 1880 Fall River Drive, Suite 100
 Loveland, CO 80538
 T 855-466-8428

1.4. Emergency telephone number

Emergency number : ChemTrec 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation, Category 2 H315 Causes skin irritation.
 Serious eye damage/eye irritation, Category 2B H320 Causes eye irritation

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H315 - Causes skin irritation.
 H320 - Causes eye irritation
 H303 - May be harmful if swallowed
 H333 - May be harmful if inhaled

Precautionary statements (GHS US) : P101: If medical advice is needed, have product container or label at hand.
 P102: Keep out of reach of children.
 P103: Read label before use.
 P264: Wash protective equipment and work clothes thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352: If on skin: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical attention.
 P305+P351+P338: 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 attention..
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P321: Treat Symptomatically.
 P332+P313: If skin irritation occurs: Get medical advice or attention.
 P362+P364: Take off contaminated clothing and wash it before reuse.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Fatty Acid, C16-18 and C18-Saturated, methyl esters	(CAS-No.) 67762-38-3	70 – 90	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
nonylphenoxypoly(ethyleneoxy)ethanol (9EO)	(CAS-No.) 9016-45-9	5 – 15	Skin Irrit. 2, H315 Eye Irrit. 2B, H320
2-butoxyethanol	(CAS-No.) 111-76-2	3	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a poison center or a doctor if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Irritation.
- Symptoms/effects after eye contact : 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. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Fire hazard : Non-combustible liquids.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

- 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 : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : 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

Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Protect product from freezing. If product freezes, warm to room temperature and agitate before use. Keep containers sealed when not in use. Store in original container only.
- Hygiene measures : Wash contaminated clothing before reuse. 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 : Protect product from freezing. If product freezes, warm to room temperature and agitate before use. Keep containers sealed when not in use. Store in original container only. Do not reuse empty container. Triple rinse (or equivalent) during mixing and loading. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at www.acrecycle.org. Decontaminated containers and rinsate must be disposed of in accordance with local, state and federal regulations.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

INVADE CNL	
No additional information available	
Fatty Acid, C16-18 and C18-Saturated, methyl esters (67762-38-3)	
No additional information available	
nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)	
No additional information available	
2-butoxyethanol (111-76-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	20 ppm
ACGIH STEL (ppm)	20 ppm

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- 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:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: amber
Odour	: characteristic
Odour threshold	: No data available
pH	: 7
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 350 °F
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 7.49 lbs/gal
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

INVADE CNL	
LD50 oral rat	5000 mg/kg
LD50 dermal rat	5050 mg/kg
ATE US (oral)	5000 mg/kg bodyweight
ATE US (dermal)	5050 mg/kg bodyweight

nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)	
LD50 oral rat	> 1310 mg/kg

2-butoxyethanol (111-76-2)	
LD50 oral rat	530 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 1746 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	435 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity; 435 mg/kg bodyweight; Rabbit; Weight of evidence; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	2.17 mg/l/4h (Rat; Experimental value; 2.35 mg/l/4h; Rat; Experimental value)
LC50 inhalation rat (ppm)	450-486, Rat; Weight of evidence

Skin corrosion/irritation : Causes skin irritation.
pH: 7
Serious eye damage/irritation : Causes eye irritation.
pH: 7
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

2-butoxyethanol (111-76-2)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Fatty Acid, C16-18 and C18-Saturated, methyl esters (67762-38-3)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)	
LC50 fish 1	5 mg/l (96 h; Gasterosteus aculeatus; Intermittent flow)
EC50 other aquatic organisms 1	500 mg/l (Selenastrum capricornutum; Chronic)
LC50 fish 2	7 mg/l (96 h; Leuciscus idus)
Threshold limit algae 1	500 mg/l (Selenastrum capricornutum; Cell numbers)

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2-butoxyethanol (111-76-2)	
LC50 fish 1	116 ppm (96 h; Cyprinodon variegatus; Nominal concentration)
EC50 Daphnia 1	1700 mg/l (48 h; Daphnia sp.; Nominal concentration)
LC50 fish 2	1341 ppm (96 h; Lepomis macrochirus)
EC50 Daphnia 2	1720 mg/l (24 h; Daphnia magna)
TLM fish 1	100 - 1000,96 h; Pisces
TLM other aquatic organisms 1	100 - 1000,96 h
Threshold limit algae 1	900 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	35 mg/l (192 h; Microcystis aeruginosa)

12.2. Persistence and degradability

Fatty Acid, C16-18 and C18-Saturated, methyl esters (67762-38-3)	
Persistence and degradability	Not established.
nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)	
Persistence and degradability	Not readily biodegradable in water. Not established.
2-butoxyethanol (111-76-2)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air. Not established.
Biochemical oxygen demand (BOD)	0.71 g O ₂ /g substance
Chemical oxygen demand (COD)	2.2 g O ₂ /g substance
ThOD	2.305 g O ₂ /g substance
BOD (% of ThOD)	0.31 % ThOD

12.3. Bioaccumulative potential

Fatty Acid, C16-18 and C18-Saturated, methyl esters (67762-38-3)	
Bioaccumulative potential	Not established.
nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)	
Partition coefficient n-octanol/water (Log Pow)	> 4
Bioaccumulative potential	Not established.
2-butoxyethanol (111-76-2)	
Partition coefficient n-octanol/water (Log Pow)	0.81 (Experimental value; BASF test; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

12.4. Mobility in soil

2-butoxyethanol (111-76-2)	
Surface tension	0.027 N/m (25 °C)

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

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Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Fatty Acid, C16-18 and C18-Saturated, methyl esters (67762-38-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA Labeling Requirements

SP - SP - indicates a substance that is identified in a proposed Significant New Use Rule.

2-butoxyethanol (111-76-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Fatty Acid, C16-18 and C18-Saturated, methyl esters (67762-38-3)

Listed on the Canadian DSL (Domestic Substances List)

nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)

Listed on the Canadian DSL (Domestic Substances List)

2-butoxyethanol (111-76-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

Component	State or local regulations
2-butoxyethanol(111-76-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Full text of H-statements:

H227	Combustible liquid
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H320	Causes eye irritation
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.