



SAFETY DATA SHEET

Revision Date: March 21, 2022

1. Identification

Product identifier

Product Name Ascend²™

EPA Reg. No. 1381-273

Recommended use of the chemical and restrictions on use

Recommended use Agricultural Plant Growth Regulator

Restrictions on use See product label for information regarding restriction on the use of this product.

Details of the supplier of the safety data sheet

Supplier Address

Winfield Solutions, LLC
P.O. Box 64589
St. Paul, MN 55164-0589

For Non-Emergency Business Inquiries:
1-855-494-6343 (Mon - Fri 8am - 5pm CST)

Emergency telephone numbers: FOR MEDICAL EMERGENCY: 1-877-424-7452 (24 hrs)

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL:
CHEMTREC 1-800-424-9300 (24 hrs)

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Serious eye damage/eye irritation	Category 2B
Flammable liquids	Category 4

Signal Word

Warning

Hazard statements

Combustible liquid.
Causes eye irritation.

Precautionary Statements - Prevention

Do not eat, drink or smoke when using this product.
Wash face, hands and any exposed skin thoroughly after handling.
Keep away from flames and hot surfaces. - No smoking.
Wear protective gloves, protective clothing, eye protection/face protection.

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for 15 -20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention.

In case of fire: Use CO₂, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool. See Section 7 and the product label for further information on storage conditions.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with Federal, state, and local regulations. See Section 13 and the product label for further information on disposal considerations.

Other information

May be harmful if swallowed.

3. Composition/information on ingredients**Substance**

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Trade secret
2-Butoxyethanol	111-76-2	10-30	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures**Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Get medical attention immediately if symptoms occur. Remove to fresh air.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 - 20 minutes. Remove contact lenses, if present and easy to do, after the first 5 minutes. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless told to do so by a poison control center or doctor. Call a physician.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see Section 8).

Most important symptoms and effects, both acute and delayed

Symptoms May cause redness and tearing of the eyes. Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	High volume water jet.
Specific hazards arising from the chemical	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk-through spilled material. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Other information	Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk-through spilled material. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid breathing vapor, mist or spray. Use with local exhaust ventilation. Take off contaminated clothing and wash before reuse. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Protect from freezing. Store out of direct sunlight. Store in accordance with Federal, state and local regulations. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a manner as to prevent cross contamination with other crop protections products, fertilizers, food, and feed. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Store in original container.
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8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³

Biological occupational exposure limits

Chemical name	ACGIH
2-Butoxyethanol 111-76-2	200 mg/g creatinine - urine (Butoxyacetic acid with hydrolysis) - end of shift

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems
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Individual protection measures, such as personal protective equipment

Eye/face protection	Goggles, face shield or safety glasses.
Hand protection	Impervious gloves.
Skin and body protection	Long-sleeved shirt, long pants, shoes and socks.
Respiratory protection	When respirators are required or if irritation occurs, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
General hygiene considerations	Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid breathing mist, vapors or spray. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state	Liquid
Color	Transparent near colorless
Odor	Mild sweet
Odor threshold	No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.21	(1% Solution)
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flash point	80°C/176°F	
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		No data available
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Vapor pressure		No data available
Vapor density		No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available

Other information

Explosive properties	Not Explosive
Oxidizing properties	No data available
Softening point	No data available
VOC Content (%)	No data available
Liquid Density	8.47 lbs./gallon @24°C
Bulk density	Not Applicable

10. Stability and reactivity

Reactivity	None under normal use conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks. Do not use with or store near any oxidizing agents.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition can lead to the release of irritating and toxic gases and vapors.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Not anticipated to be acutely toxic via inhalation. May cause mild irritation of the upper respiratory tract.
Eye contact	Causes eye irritation (redness, itching, and pain).
Skin contact	May cause mild but temporary skin irritation in sensitive individuals. Not anticipated to be acutely toxic if absorbed through skin.
Ingestion	May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Redness. May cause redness and tearing of the eyes.
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Acute toxicity

Numerical measures of toxicity (Values based on formulated product)

Acute Oral Toxicity (rat):	LD ₅₀ = 5,000 mg/kg
Acute Dermal Toxicity (rat):	LD ₅₀ = >5,050 mg/kg
Acute Inhalation Toxicity (rat):	LC ₅₀ = >5.05 mg/L

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Based on animal test data this product was rated non-irritating. Therefore, the classification criteria are not met. However, sensitive individuals may experience mild but temporary irritation.
Serious eye damage/eye irritation	Based on animal test data this product is rated minimally irritating to eyes. No irritation was observed in any eye after 72 hours.
Respiratory or skin sensitization	Based on information on the components in the formulation, this product is not anticipated to cause respiratory sensitization. Animal test data indicates that this product is not a skin sensitizer.
Germ cell mutagenicity	Based on information on the components in the formulation, this product is not anticipated to cause mutagenic effects.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
2-Butoxyethanol 111-76-2	A3	Group 3	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity	Based on information on the components in the formulation, this product is not anticipated to cause reproductive toxicity.
STOT - single exposure	Evaluation of available data suggests that this material is not an STOT-SE toxicant.
STOT - repeated exposure	No information available.
Target organ effects	Liver. Kidney. Respiratory system. Eyes. Skin. Central nervous system. Blood. hematopoietic system.
Aspiration hazard	Based on information on the components on the formulation, this product is not anticipated to be an aspirational hazard.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-Butoxyethanol 111-76-2	-	LC50: =1490mg/L (96h, Lepomis macrochirus) LC50: =2950mg/L (96h, Lepomis macrochirus)	-	EC50: >1000mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
2-Butoxyethanol 111-76-2	0.81

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Dispose of in accordance with Federal, state and local regulations.

Contaminated packaging Clean container promptly after emptying. Triple rise containers. Follow rinsing instructions on the product label. Then offer for recycling or by other procedures approved by state and local authorities.

14. Transport information

DOT This product is not regulated by the U.S. DOT as a hazardous material for ground shipment in packages with a capacity of ≤119 gallons.

For packages with a capacity of >119 gallons:

UN/ID no NA1993
Proper shipping name Combustible liquid, n.o.s. (2-butoxyethanol)
Transport hazard class(es) Combustible liquid
Packing group III
Special Provisions IB3, T1, TP1, 148
DOT Marine Pollutant No
Description NA1993, Combustible liquid, n.o.s. (2-butoxyethanol), PG III
Emergency Response Guide Number 128

IATA Not Regulated

IMDG Not Regulated

15. Regulatory information**TSCA Inventory**

This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
2-Butoxyethanol - 111-76-2	1.0

SARA 311/312 Hazard Categories

Refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
2-Butoxyethanol 111-76-2	X	X	X
1,2-Propanediol 57-55-6	X	No	X

Other state regulations may apply. Check individual state requirements.

U.S. EPA Label Information**EPA Pesticide Registration Number** 1381-273

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 required on the pesticide label:

Signal Word: Caution

Hazard Statements:

Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwater or rinsate.

Do not use with or store near any oxidizing agents.

16. Other information

NFPA	Health hazards 1	Flammability 2	Instability 0	Special hazards -
HMIS	Health hazards 1	Flammability 2	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AELG(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program
 Organization for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

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Sections Revised All

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet