Axtrus™ 240 EC

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifiers

Product name: Axtrus™ 240 EC

PMRA Registration No.: 35894

Relevant identified uses of the substance or mixture and uses advised against

Crop protection product, herbicide

Details of the supplier of the safety data sheet

Company: Avesta CropScience Inc.
Address: Suite 2900, Bentall 5
550 Burrard Street
Vancouver, BC, V6C 0A3

Telephone: 1-800-607-5443

Website: https://avestacrop.com

Emergency telephone number: 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

Hazard classification:

Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Aspiration hazard	Category 1

Signal word: Danger
Hazard statements:
Causes serious eye damage
Suspected of causing cancer
May be fatal if swallowed or enters airways

Precautionary statements - Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection. Use only in a well-ventilated area. Avoid breathing vapours or spray mist. Wash thoroughly after handling.

Response measures:
If exposed or concerned: Get medical advice/attention.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison control centre or doctor.

If swallowed: Immediately call a poison control centre or doctor. Do NOT induce vomiting.

In case of fire: Use dry chemical, CO2, water spray or standard foam to extinguish.

Precautionary statements - Storage
Store locked up. Store in a well-ventilated place.

Precautionary statements - Disposal
Dispose of contents and container in accordance with local, regional, national and international regulations as applicable.

Other information
May be harmful in contact with skin. Causes mild skin irritation. Very toxic to aquatic life with long-lasting effects.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name: Solvent naphtha (petroleum), heavy aromatic
CAS No.: 64742-94-5
Weight-%: 60-80%
Contains:
2-Methylnaphthalene (CAS No. 91-57-6)
Naphthalene (CAS No. 91-20-3)
1-Methylnaphthalene (CAS No. 90-12-0)

Chemical name: Carfentrazone-ethyl
CAS No.: 128639-02-1
Weight-%: 10-30%

Chemical name: Benzenesulfonic acid, C10-14-alkyl derivatives, calcium salts
CAS No.: 90194-26-6
Weight-%: 1-5

Chemical name: Butan-1-ol
CAS No.: 71-36-3
Weight-%: 1-5

SECTION 4: FIRST-AID MEASURES

General advice: Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. If exposed or concerned, get medical advice/attention.
If inhaled: Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, oxygen should be administered by qualified medical personnel. Delayed pulmonary edema may occur.
If on skin: Wash off immediately with soap and plenty of water while removing all contaminated clothing and shoes. Get medical attention if irritation develops and persists.
If in eyes: Rinse immediately with plenty of water for at least 15 minutes, including under eyelids. Keep eyes wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
If swallowed: Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Aspiration hazard if swallowed - can enter lungs and cause damage. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Get immediate medical attention.
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. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required.
Symptoms: Burning sensation. May cause redness and tearing of the eyes. May cause blindness, difficulty in breathing, dizziness, and/or wheezing. Prolonged contact may cause redness and irritation.
Effects of exposure: Suspected of causing cancer.

Note to physicians: Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.

SECTION 5: FIREFIGHTING MEASURES

Suitable extinguishing media: Dry chemical, CO2, water spray or standard foam.

Unsuitable extinguishing media: Straight streams of water.

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.

Hazardous combustion products: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

Explosion data
Sensitivity to mechanical impact: None.
Sensitivity to static discharge: Yes.

Special protective equipment and precautions for firefighters: Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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

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. Build a dam. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7: HANDLING AND STORAGE

Advice on safe handling: Use with adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protective equipment. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

General hygiene considerations: Do not eat, drink or smoke when using this product. Contaminated work clothing should not be removed from the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. Store in accordance with applicable national and local regulations. Store locked up. Keep out of reach of children. Store away from incompatible materials.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls
Showers
Eyewash stations
Ventilation systems.

Eye and face protection: Tight sealing safety goggles. Face shield.

Hand protection: Wear suitable gloves.

Skin and body protection: Wear suitable protective clothing, chemical-resistant footwear, and other protective equipment as appropriate to prevent skin contact.

Respiratory protection: Use respiratory protection where ventilation is inadequate to control airborne concentrations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid

Odour: Characteristic

Odour threshold: Not applicable

Colour: Amber

pH value: 5.93

Melting point: Not applicable

Boiling temperature: > = 100°C

Flash point: 80°C

Flammability: Not applicable

Relative density (Water=1): 1.04 ±0.01 g/mL at 20 °C

Auto-ignition temperature: Not applicable

Dynamic viscosity: 19.219 mPa·s

Water solubility: Forms an emulsion in water

Solubility: Miscible in methanol and acetone

SECTION 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.
Incompatible materials: Strong oxidizing agents, nitric acid, sulfuric acid.
Hazardous decomposition products: None known based on information supplied.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation: Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract.

Eye contact: Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact: Specific test data for the substance or mixture is not available. Causes mild skin irritation. May be harmful in contact with skin. Repeated exposure may cause skin dryness or cracking.

Ingestion: Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms: May cause redness and tearing of the eyes. Burning sensation. May cause blindness, difficulty breathing, coughing and/or wheezing and dizziness. Prolonged contact may cause redness and irritation.

Acute toxicity: Based on available data for the mixture and components.

Numerical measures of toxicity
The following ATE values have been calculated for the mixture:
ATEmix (oral): > 5,000 mg/kg
ATEmix (dermal): > 2,000 mg/kg
ATEmix (inhalation-dust/mist): > 5 mg/L

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Solvent naphtha (petroleum), heavy aromatic 64742-94-5	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 4688 mg/m3 (Vapor) 4h
Carfentrazone-ethyl 128639-02-1	= 5143 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 5.09 mg/L (Rat) 4h
2-Methylnaphthalene 91-57-6	= 1630 mg/kg (Rat)	-	-
Naphthalene 91-20-3	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 0.4 mg/L (Rat) 4h
1-Methylnaphthalene 90-12-0	= 1840 mg/kg (Rat)	-	-
Benzenesulfonic acid, 4-C10-14-alkyl derivs., calcium salts 90194-26-6	= 4445 mg/kg (Rat)	= 2005 mg/kg (Rat)	-
Butan-1-ol 71-36-3	= 700 mg/kg (Rat)	= 3402 mg/kg (Rabbit)	> 17.76 mg/L (Rat) 4h

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

Skin corrosion/irritation: Classification based on data available for ingredients. Causes mild skin irritation.

Serious eye damage/eye irritation: Classification based on data available for ingredients. Causes serious eye damage.

Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer. The carcinogenicity classification is based on available data for the individual ingredients of the mixture.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Carfentrazone-ethyl 128639-02-1	A4 - Not classifiable as a human carcinogen	-	-	-
2-Methylnaphthalene 91-57-6	A4 - Not classifiable as a human carcinogen	-	-	-
Naphthalene 91-20-3	A3 - Confirmed animal carcinogen (with unknown relevance to humans)	Group 2B - Possibly carcinogenic to humans	Reasonably anticipated to be a human carcinogen	Present
1-Methylnaphthalene 90-12-0	A4 - Not classifiable as a human carcinogen	-	-	-

Reproductive toxicity: No information available.
STOT - single exposure: No information available.
STOT - repeated exposure: No information available.
Aspiration hazard: May be fatal if swallowed and enters airways.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Very toxic to aquatic life with long-lasting effects.
Chemical name: Solvent naphtha (petroleum), heavy aromatic
64742-94-5
Algae/aquatic plants: Not applicable
Fish: LC50: =19 mg/L (96h, Pimephales promelas)
LC50: =2.34 mg/L (96h, Oncorhynchus mykiss)
LC50: =1740 mg/L (96h, Lepomis macrochirus)
LC50: =45 mg/L (96h, Pimephales promelas)
LC50: =41 mg/L (96h, Pimephales promelas)
Toxicity to microorganisms: Not applicable
Crustacea: EC50: =0.95 mg/L (48h, Daphnia magna)

Chemical name: Naphthalene
91-20-3
Algae/aquatic plants: Not applicable
Fish: LC50: 5.74 - 6.44 mg/L (96h, Pimephales promelas)
LC50: =1.6 mg/L (96h, Oncorhynchus mykiss)
LC50: 0.91 - 2.82 mg/L (96h, Oncorhynchus mykiss)
LC50: =1.99 mg/L (96h, Pimephales promelas)
LC50: =31.0265 mg/L (96h, Lepomis macrochirus)
Toxicity to microorganisms: Not applicable
Crustacea: LC50: =2.16 mg/L (48h, Daphnia magna)
EC50: =1.96 mg/L (48h, Daphnia magna)
EC50: 1.09 - 3.4 mg/L (48h, Daphnia magna)

Chemical name: Butan-1-ol
71-36-3
Algae/aquatic plants: EC50: >500 mg/L (96h, Desmodesmus subspicatus)
EC50: >500 mg/L (72h, Desmodesmus subspicatus)
Fish: LC50: 1730 - 1910 mg/L (96h, Pimephales promelas)
LC50: =1740 mg/L (96h, Pimephales promelas)
LC50: 100000-500000 µg/L (96h, Lepomis macrochirus)
LC50: =1910000 µg/L (96h, Pimephales promelas)
Toxicity to microorganisms: Not applicable
Crustacea: EC50: =1983 mg/L (48h, Daphnia magna)
EC50: 1897 - 2072 mg/L (48h, Daphnia magna)

Bioaccumulative potential

Chemical name	Partition coefficient
Solvent naphtha (petroleum), heavy aromatic 64742-94-5	6.5
2-Methylnaphthalene 91-57-6	3.86
Naphthalene 91-20-3	3.4
Butan-1-ol 71-36-3	1

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues/unused products: Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging: Do not reuse empty containers.

SECTION 14: TRANSPORTATION INFORMATION

DOT (U.S. – Ground Transport): Not regulated / non-hazardous when shipped in non-bulk packaging (<119 gallons per container).

TDG (Canada – Ground Transport): Not regulated / non-hazardous
Shipment by ground (highway or rail) is not regulated as a dangerous good under the Transportation of Dangerous Goods Regulations (TDG), provided the packaging meets all applicable TDG requirements.
No marks, labels, placards, or shipping documents are required in accordance with TDG subsection 1.45.1.
This TDG exemption applies to ground transport only.
For air (IATA) and marine (IMDG) transport, this product is regulated as UN3082, Class 9, Packing Group III, environmentally hazardous.
TDG marks, labels, placards, or documentation may be used voluntarily to facilitate multi-modal transport involving ICAO (IATA) or IMO (IMDG).

IATA (Air Transport): Regulated
UN number: UN3082
UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
Technical name: Solvent naphtha (petroleum), heavy aromatic, carfentrazone-ethyl
Transport hazard class: 9
Packing group: III
Environmental hazards: Yes
Special Provisions: A97, A158, A197, A215
ERG Code: 9L
Description: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Solvent naphtha (petroleum), heavy aromatic, carfentrazone-ethyl), 9, PG III

IMDG (Marine Transport): Regulated
UN number: UN3082
UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
Technical name: Solvent naphtha (petroleum), heavy aromatic, carfentrazone-ethyl
Transport hazard class: 9
Packing group: III
Marine pollutant: Yes
Marine pollutant name: Solvent naphtha (petroleum), heavy aromatic, carfentrazone-ethyl
Special Provisions: 274, 335, 375, 969
EmS-No.: F-A, S-F
Description: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Solvent naphtha (petroleum), heavy aromatic, carfentrazone-ethyl), 9, PG III, marine pollutant

SECTION 15: REGULATORY INFORMATION

International Regulations
The Montreal Protocol on Substances that Deplete the Ozone Layer: Not applicable
The Stockholm Convention on Persistent Organic Pollutants: Not applicable
The Rotterdam Convention: Not applicable

International Inventories
Contact supplier for inventory compliance status

SECTION 16: OTHER INFORMATION

This SDS summarizes our current understanding of the health and safety hazards associated with the product and guides how to handle and use it safely in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the company. This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR) and follows the requirements of WHMIS 2015.