STRYDOR™ 360

SAFETY DATA SHEET

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

Product identifiers

Product name: Strydor™ 360

PMRA Registration No.: 36160

Relevant identified uses of the substance or mixture

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: 1-720-625-2797

Website: https://avestacrop.com

Emergency telephone number: 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

Signal word: Warning
Hazard statements: Harmful if inhaled.

Precautionary statements - prevention
Wear protective gloves, eye protection, and face protection.
Avoid breathing mist or spray.
Use only outdoors or in a well-ventilated area.
Wash face, hands, and any exposed skin thoroughly after handling.
Keep container tightly closed.

Precautionary statements - response
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/attention.
If on skin (or hair): Immediately remove all contaminated clothing.
Rinse skin with water.
If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison control centre or doctor/physician if you feel unwell.
In case of a fire: Use CO2, dry chemical, or foam for extinguishing.

Precautionary statements - storage
Store locked up. Store in a well-ventilated place. Keep cool. Keep out of reach of children.

Precautionary statements - disposal
Dispose of contents/container at an approved waste disposal plant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name: Clopyralid
CAS No.: 57754-85-5
Concentration: 360 g/L

Chemical name: Isopropanol
CAS No.: 67-63-0
Concentration: 80 g/L

Chemical name: Other ingredients including water
CAS No.: Not applicable.
Concentration: 560 g/L

SECTION 4: FIRST-AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled: Remove patient to fresh air. If not breathing, give mouth-to-mouth resuscitation and call a physician immediately.
In case of skin contact: Remove contaminated clothing and wash skin with soap and water. If irritation persists, call a physician. Wash contaminated clothing before reuse.
In case of eye contact: Flush with water for at least 15 minutes. Call a physician immediately.
If swallowed: Rinse mouth. Do NOT induce vomiting. Seek medical advice or contact a Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

SECTION 5: FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water fog. Carbon dioxide (CO2). Dry chemical. Foam.

Special hazards arising from the substance or mixture: This material will not burn until the water has evaporated. May form flammable vapour-air mixtures under certain conditions (e.g., when heated). Residues may burn. Container may rupture from gas generation in a fire situation.

Hazardous combustion products: Under fire conditions, some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to nitrogen oxides, hydrogen chloride, carbon monoxide and carbon dioxide.

Advice for firefighters: Isolate fire and keep unnecessary and unprotected personnel from accessing area. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Move container from fire area if this is possible without hazard. To extinguish combustible residues of this product, use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. If not contained, it may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this SDS. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Keep personnel out of low-lying areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Eliminate all sources of ignition in vicinity of spill or released vapour to avoid fire or explosion. Ground and bond all containers and handling equipment. Vapour explosion hazard. Keep out of sewers. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Pump with explosion-proof equipment. If available, use foam to smother or suppress. For small spills, absorb with materials such as clay, dirt or sand. Sweep up and collect in suitable and properly labeled containers. For waste disposal, see Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children. Do not swallow. Avoid breathing sprays or mists. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed when not in use. Containers, even those that have been emptied, may contain residues; handle empty containers with care. Do not cut, drill, grind, weld, or perform similar operations on empty containers. Handle in accordance with good industrial hygiene and safety practices.

Storage conditions: Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

Incompatible materials: Avoid contacts with acids, halogenated organics and oxidizers. Avoid contact with metals such as aluminum, zinc, brass and copper.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical name: Isopropanol 67-63-0
ACGIH TLV:
- STEL: 400 ppm
- TWA: 200 ppm

OSHA PEL:
TWA: 400 ppm
- TWA: 980 mg/m3
- (vacated) TWA: 400 ppm
- (vacated) TWA: 980 mg/m3
- (vacated) STEL: 500 ppm
- (vacated) STEL: 1225 mg/m3

NIOSH IDLH:
- IDLH: 2000 ppm
- TWA: 400 ppm
- TWA: 980 mg/m3
- STEL: 500 ppm
- STEL: 1225 mg/m3

Occupational exposure limits may vary by jurisdiction.

Engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures, such as personal protective equipment
Eye/face protection: Wear goggles or a face shield as required for eye and face protection.
Skin and body protection: Rubber apron. Chemically-resistant gloves. Rubber boots. Long sleeve shirt and long pants.
Respiratory protection: This material may be a respiratory irritant and, unless ventilation is adequate, the use of approved respiratory protection is recommended. Use this material only in well-ventilated areas.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid

Odour: Sweet

Odour threshold: No data available.

Colour: Light yellow to brown

pH value: 7.5

Melting/freezing point: No data available.

Initial boiling point and boiling range: 100°C

Flash point: No data available.

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Upper/lower flammability or explosive limits: No data available.

Vapour pressure: 23.5 mm Hg at 20°C

Vapour density: No data available.

Relative density: 1.18 g/mL at 20.0°C.

Water solubility: Miscible

Partition coefficient (n-octanol/water): No data available.

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Dynamic Viscosity:
43.8 mPa·S at 50 rpm, 20.0°C
43.7 mPa·S at 60 rpm, 20.0°C
35.9 mPa·S at 50 rpm, 40.0°C
35.7 mPa·S at 60 rpm, 40.0°C

Explosive properties: Non-explosive.

Oxidizing properties: No data available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No data available.
Chemical stability: Store under cool, dry conditions. Avoid elevated temperatures and direct sunlight. Do not use or store near heat, open flame or other sources of ignition.
Possibility of hazardous reactions: No data available.
Conditions to avoid: Direct sunlight.
Incompatible materials: Avoid acids, oxidizing materials, halogenated organics, brass, copper, zinc.
Hazardous decomposition products: Hydrogen chloride, nitrogen oxides (under fire conditions), chlorinated pyridine. In the event of fire, see Section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral – Rat 5000 mg/kg body weight
LD50 Dermal – Rat >2000 mg/kg body weight
LC50 Inhalation – Rat >5.04 mg/L of air

Skin corrosion/irritation: Rabbit, non-irritant.
Eye damage/eye irritation: Rabbit, may cause eye irritation.
Skin sensitisation: May rarely cause an allergic skin response.
Germ cell mutagenicity: No data available.
Carcinogenicity: No data available.
Reproductive toxicity: In animal studies, the components of this formulation have been shown not to interfere with reproduction.
Specific target organ toxicity - single exposure: No data available.
Specific target organ toxicity - repeated exposure: No data available.
Aspiration hazard: No data available.
Additional Information: No data available.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity
Birds (LD50):
1465 mg/kg (Mallard)
>2000 mg/kg (Bobwhite quail)
>1000 mg/kg (Worms)
Fish (LC_{50}):
103.5 mg/L (Rainbow trout)
125 mg/L (Bluegill)
Non-toxic to bees.

Persistence and degradability
IN SOIL: Microbial degradation is the major route of degradation of clopyralid. Carbon dioxide is the major product of degradation, with only traces of one other metabolite having been recorded. The half-life of clopyralid in laboratory studies ranges from 14 to 56 days. Field dissipation and lysimeter studies show that potential for groundwater contamination is minimal.

IN PLANTS: Clopyralid is not metabolized in plants.

IN ANIMALS: In rats, following oral administration of clopyralid, there is rapid and almost complete elimination in the urine.

Bio-accumulative potential: No data available.

Mobility in soil: No data available.

Results of PBT and vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods: Do not contaminate food, feed, or water by storage or disposal. Pesticide wastes are toxic. If wastes resulting from the use of this product cannot be disposed of according to label instructions, dispose of these wastes at an approved facility.

Contaminated packaging: Dispose of in the same manner as unused product.

SECTION 14: TRANSPORTATION INFORMATION

TDG: Not regulated (non-hazardous)
ADR/RID (Europe): Not dangerous goods.
IMDG: Not dangerous goods.
IATA: Not dangerous goods.

Environmental hazards
ADR/RID: No
IMDG Marine pollutant: No
IATA: No

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific to the substance or mixture

This product is regulated under the Pest Control Products Act (Canada). Labelling requirements under the Pest Control Products Act may differ from the criteria of WHMIS 2015.

Chemical safety assessment:
A chemical safety assessment has not been carried out for this product.

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.