

**Advantage Crop Protection Inc.**

**Clopyralid 360**

**Nov 30 2020**

### 1. PRODUCT IDENTIFICATION:

PRODUCT NAME: Advantage Clopyralid 360

SUPPLIER: Advantage Crop Protection Inc.  
601-402 21<sup>st</sup> Street East,  
Saskatoon, Saskatchewan,  
Canada.  
S7K 0C3

Telephone: 1-888-931-2530

IN CASE OF EMERGENCY CALL : Canutec 1-613-996-6666

THIS PRODUCT IS REGULATED UNDER THE PEST CONTROL PRODUCTS ACT:

**PCP# 33795**

Recommended Use of the chemical: Herbicide

### 2. COMPOSITION:

COMPONENT	CAS NUMBER	g/L (W/V)
Clopyralid	1702-17-6	360
Inert ingredients (Including: Water)		to 1L

### 3. HAZARD IDENTIFICATION:

Signal Word:

Warning

Hazard statements:

Harmful if inhaled

Causes eye irritation

Flammable liquid and vapor



### EMERGENCY OVERVIEW:

This product is a reddish-brown clear liquid with a sweet odor. Prolonged exposure may cause skin irritation. Slight transient corneal injury may occur. Prolonged exposure may cause skin irritation.

### POTENTIAL HEALTH EFFECTS:

**EYES:** This product may cause very slight transient corneal injury. Vapors may irritate eyes.

**SKIN CONTACT:** Prolonged exposure may cause moderate skin irritation. Repeated contact may cause drying or flaking of skin.

**SKIN ABSORPTION:** A single prolonged exposure is not likely to result in this material being absorbed in harmful amounts.

INGESTION: No hazards anticipated from swallowing small amounts incidental to normal handling operations.

INHALATION: Excessive vapor concentrations of Isopropanol are attainable and could be hazardous on a single exposure. Excessive exposure (400 ppm) to Isopropanol may cause eye, nose, and throat irritation. In coordination, confusion, hypertension, hypothermia, circulatory collapse, respiratory arrest, and death may follow longer duration or higher levels of exposure to Isopropanol. Observations in animals include middle ear lining damage upon exposure to vapors of Isopropanol.

**4. FIRST AID MEASURES:**

EYES: Flush eyes with plenty of water.

SKIN: Wash in flowing water or shower.

INGESTION: Do not induce vomiting unless instructed to do so by qualified medical personnel. Get medical attention.

INHALATION: Remove individual to fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing difficulty continues, get expert medical attention.

NOTE TO PHYSICIAN: There is no specific antidote. Employ supportive care. Treatment should be based on the judgment of the physician in response to the reactions of the patient.

**5. FIRE-FIGHTING MEASURES:**

FLASH POINT: 100 deg C

FLAMMABLE LIMITS: Not available

AUTO-IGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA: Water fog, foam (alcohol resistant AFFF at 3% or 6%), CO<sub>2</sub>, dry chemical. Foam is preferred.

SENSITIVITY TO MECHANICAL IMPACT/STATIC DISCHARGE: Not available

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is a water-based solution and except under gross fire conditions, it should not burn. Contain fire-fighting water for future disposal. Noxious fumes are created under fire conditions.

FIRE-FIGHTING EQUIPMENT: Wear positive-pressure self-contained breathing apparatus and full turn-out gear.

**6. ACCIDENTAL RELEASE MEASURES:**

Soak up spills with absorbent material. Dike area in case of large spills. Do not use water for cleanup. Clopyralid is a herbicide that acts on many broadleaf plants. Avoid contaminating soil near desirable vegetation. Do not allow spilled material to contaminate water supplies. Dike area and notify ACPI if large amounts of product are involved in the spill.

**7. HANDLING AND STORAGE:**

**HANDLING:** Keep out of reach of children and animals. Do not swallow. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing.

**STORAGE:** This product is combustible. Do not use or store this product near a heat source, open flame or other sources of ignition, particularly if storage temperatures are near the flash point (47 degC). Keep container closed when not in use. Do not ship with foodstuffs, feed, seed, drugs or clothing.

**8. EXPOSURE CONTROLS, PERSONAL PROTECTION AND EXPOSURE LIMITS:****EXPOSURE LIMITS:**

Clopyralid (acid): ACPI Hygiene Guide is 10 mg/m<sup>3</sup>. Isopropyl alcohol: ACGIH TLV and OSHA PEL are 400 ppm TWA, 500 ppm STEL.

Polyglycol: ACPI Hygiene Guide is 2 mg/m<sup>3</sup>.

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Use only with adequate ventilation.

**RESPIRATORY PROTECTION:** Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved positive-pressure or supplied-air respirator.

**PROTECTIVE CLOTHING:** For brief contact during manufacture, warehousing and transport, wear clean body-covering clothing. During operations where exposure to the concentrated product may occur, use protective clothing impervious to this product. Use of items made of heavy-duty neoprene or nitrile rubber is suggested. Selection of specific items such as face shield, respirator, boots, gloves, apron or full body suit will depend on the operation being carried out. Applicators and other field handlers, including persons repairing or cleaning application equipment, must wear clean body-covering clothing, impervious gloves and boots. In addition, an impervious apron must be worn by persons making and/or transferring field dilutions of this product.

**EYES:** Use safety glasses. If vapor exposure causes eye discomfort, use an approved full-face respirator.

**OTHER PROTECTION:** None specified

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

Boiling point: 100 deg C

Vapor pressure: 23.5 mm Hg at 20 deg C

Volatility: 1.06 at 20 deg C

pH: 8.5

Appearance: Reddish-brown liquid

Odor: Sweet



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Coefficient of water/oil distribution: Not available

Specific gravity: 1.16g/cm<sup>3</sup> at 20 deg C

Evaporation rate: Not available

Solubility in water: Miscible

Freezing point: Not available

Odor threshold: Not available

Melting point: Not applicable

### 10. STABILITY AND REACTIVITY:

**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, especially if air temperatures are near the flash point (47 deg C).

**INCOMPATIBILITY:** Avoid acids, oxidizing materials, halogenated organics, brass, copper, zinc (including galvanized metals) and aluminum.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen chloride, nitrogen oxides (under fire conditions), chlorinated pyridine.

**HAZARDOUS POLYMERIZATION:** Does not occur

### 11. TOXICOLOGICAL INFORMATION:

**SKIN ABSORPTION:** LD50 (rabbit) is >5000 mg/kg.

**INGESTION:** LD50 is >5000 mg/kg.

**INHALATION:** The maximum practically - attainable concentration of this product in the tests (3.0 mg/L for four hours) produced no ill effects in test animals.

**SENSITIZATION:** This product may rarely cause an allergic skin response.

**CHRONIC EFFECTS:** In animals, effects have been reported on the following organs: liver and kidney. Observations in animals include lethargy. For isopropanol: kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

**CANCER:** The components of this formulation did not cause cancer in laboratory animals.

**BIRTH DEFECTS:** Clopyralid caused birth defects in test animals, but only at greatly exaggerated doses that were severely toxic to the mothers. No birth defects were observed in animals given clopyralid at doses several times greater than those expected during normal exposure. Isopropyl alcohol at extremely high concentrations has been reported to cause birth defects and fetal toxicity in rats. At lower concentrations there were no effects on the fetus.

**REPRODUCTIVE EFFECTS:** In animal studies the components of this formulation have been shown not to interfere with reproduction.

**MUTAGENICITY:** In vitro and animal mutagenicity studies for the components of this formulation were negative.

### 12. ECOLOGICAL INFORMATION:

Clopyralid is considered not toxic to bees. Based largely or completely on information for clopyralid, is practically non-toxic to aquatic organisms on an acute basis, and is practically



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non-toxic to birds on a dietary basis Clopyralid is slightly toxic to birds on an acute basis. For more complete eco-toxicological information.

### DEGRADATION AND METABOLISM:

**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.

### 13. DISPOSAL CONSIDERATIONS:

Dispose in secure landfills or by registered use, in compliance with all applicable federal, provincial and municipal laws and regulations.

### 14. TRANSPORT INFORMATION:

DOT

UN/ID No UN1993

Proper Shipping Name Flammable liquid, n.o.s. (Isopropanol)

Hazard Class 3

Packing Group III

IATA

UN/ID No UN1993

Proper Shipping Name Flammable liquid, n.o.s. (isopropanol)

Hazard Class 3

Packing Group III

IMDG

UN/ID

No UN1993

Proper Shipping Name Flammable liquid, n.o.s. (isopropanol)

Hazard Class 3

Packing Group III

TDG

UN/ID No UN1993

Proper Shipping Name Flammable liquid, n.o.s. (isopropanol)

Hazard Class 3

Packing Group III



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### 15. REGULATORY INFORMATION:

#### COMPREHENSIVE ENVIRONMENTAL RESPONSE

**COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND):** To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

### 16. OTHER INFORMATION:

**MSDS STATUS:** original made Nov 30 2020.

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