

SECTION 1: Product and Company Identification

Product Name:	Aurora Herbicide
Chemical Type:	Herbicide
Restrictions on use:	See product label for restrictions
Pest Control Products (PCP) Act Registration No.:	29711
Supplier information: AgraCity Crop and Nutrition Ltd	Tel: 1-844-269 3276
320-22 nd Street East, Saskatoon, Saskatchewan Canada S7K0H1	
Emergency Phone: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC 1-800-424-9300 / +1 703-527-3887	

SECTION 2: HAZARDS IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015)

Flammable liquid – **Category 4** (Combustible Liquid)

Health: Acute toxicity:

Oral (**category 5**) – may be harmful if swallowed.

Dermal (**category 5**) – may be harmful in contact with skin.

Inhalation (**category 5**) – may be harmful if inhaled.

Skin irritation (**category 3**) – causes mild skin irritation.

Serious eye damage / eye irritation (**category 2b**) – causes eye irritation.



Signal word: **CAUTION POISON**

PHYSICAL PROPERTIES:

Appearance: Amber to brown liquid

Odor: Aromatic

PRECAUTIONARY STATEMENTS

General:

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Avoid breathing fumes, mist, vapors, or spray.

Wash hands, face, and other affected areas thoroughly after handling.

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Do not eat, drink, or smoke when using this product.

Use only outdoors or in a well ventilated area.

Wear protective gloves / protective clothing / eye protection / face protection.

Avoid release to the environment.

Response:**IF SWALLOWED:** Immediately call a POISON CENTER/doctor/ physician. **Do NOT** induce vomiting.**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. **IF EYE IRRITATION PERSISTS:** Get medical advice/ attention.**IN CASE OF FIRE:** Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Store locked up. Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local regulation.

PHYSICAL OR CHEMICAL HAZARDS COMBUSTIBLE. Do not use or store near heat or open flame.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NO.	W/W%
Clodinafop-Propargyl	105512-06-9	22 -24
Cloquintocet-Mexyl	99607-70-2	5 - 7
Petroleum Solvent	64742-94-5	47 - 52
Emulsifiers and other proprietary ingredients		8- 10

SECTION 4: FIRST AID MEASURES**IF SWALLOWED,** call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.**IF ON SKIN OR CLOTHING,** take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.**IF IN EYES,** hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

IF INHALED, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: This product contains PETROLEUM DISTILLATES. Vomiting may cause aspiration pneumonia. High concentrations of MCPA may cause severe irritation to the eyes.

Symptoms of overexposure to MCPA could include slurred speech, twitching, jerking and spasms, drooling, low-blood pressure and unconsciousness. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

FLASH POINT: >66 °C

EXTINGUISHING MEDIA: For small fire: dry chemical powder, water spray carbon dioxide. For large fire: foam, water fog, water spray.

SPECIAL EXPOSURE HAZARDS: Flashback may occur along vapor trail.

FIRE AND EXPLOSION HAZARDS: Dangerous gases are evolved in the event of a fire.

FIRE FIGHTING PROCEDURES: Fight fire from a safe distance and protected location. Fight fire upwind to avoid hazardous vapors and decomposing products. Heat may build pressure and rupture closed containers, spreading fire and increasing the risk of injury. Empty containers may contain residue product and can be dangerous. Use water spray/fog for cooling containers and firefighters. Notify proper authorities if liquid material enters the sewer or public waters.

FIRE FIGHTING EQUIPMENT: as with any fire, wear self-contained breathing apparatus pressure demand, (msha/niosh approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PROTECTIVE EQUIPMENT: The proper personal protective equipment for incidental releases (such as 1 liter of product released in a well ventilated area), use impermeable gloves, goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with the latest OSHA and/or ANSI recommendations.

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ENVIRONMENTAL PRECAUTIONS: Stop spill at source. Construct temporary dikes of dirt, sand, or appropriate readily available material to prevent spreading of material. Close cap or valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate assistance.

CONTAINMENT AND CLEANUP: Absorb spilled liquid with polypads or other absorbent materials. Clean up with non-combustible absorbent (such as sand, soil, and so on). Shovel up and place all spill residue in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Advice on safe handling Handle and open container in a manner as to prevent spillage. Avoid contact with skin, eyes and clothing. Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion Keep away from heat and sources of ignition.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container and out of the reach of children, preferably in a locked storage area. Keep away from direct sunlight. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

RESPIRATORY PROTECTION EQUIPMENT: Use an approved pesticide respirator if ventilation is not adequate or exposure to sprays, mists or concentrated vapours is likely.

PROTECTIVE GLOVES: Chemical-resistant gloves such as nitrile.

EYE AND FACE PROTECTION: Goggles or face shield when handling concentrate.

OTHER PROTECTIVE EQUIPMENT: Long sleeved shirt, long pants, socks and shoes suggested as minimum work clothing. Generally, a second layer such as coveralls suggested for handling concentrate. Use other equipment appropriate to specific situation.

VENTILATION: Use only in well ventilated area.

ENGINEERING CONTROLS: Use in a well ventilated area. General ventilation with a good source of make-up air recommended as minimum for indoor situations. Ventilation should be adequate to maintain air concentrations below flammable limits.

ADDITIONAL PROTECTIVE MEASURES: Discarded clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown liquid
Odor	aromatic
Density	1.01 g/cm ³ at 20 °C
Flash point	66.1 °C
pH	6.9

SECTION 10: STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	Extremes of temperature and direct sunlight.
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD50 (Rat):	> 2,200 mg/kg
Acute Dermal LD50 (Rat):	> 4,000 mg/kg
Acute Inhalation LC50 (Rat):	3.5 mg/L (4-hr)

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Eye – may cause irritation to eyes including redness, tearing, blurred vision and discomfort.

Skin – may cause irritation to skin. Absorption through skin increases exposure. Prolonged exposure may cause more severe irritation such as local redness and swelling.

Inhalation – may irritate the respiratory tract and cause discomfort to nose and throat.

Ingestion – swallowing can cause abdominal irritation, nausea, vomiting and diarrhea. Do not taste or swallow product.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: Toxic to aquatic organisms and non-target terrestrial plants. This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

Eco-Acute Toxicity

Clodinafop-Propargyl:

BeesLC50/EC50 > 100µg/bee

Invertebrates(WaterFlea)LC50/EC50 0> 2 ppm

Fish(Trout)LC50/EC50 0.39ppm

Fish (Bluegill) LC50/EC50 0.21ppm

Birds(8-daydietary-BobwhiteQuail)LC50/EC50 > 5,200 ppm

Birds(8-daydietary-MallardDuck)LC50/EC50 > 5,200 ppm

Eco-Chronic Toxicity

Clodinafop-Propargyl:

Invertebrate(Daphniamagna) 21-DayReproductionEC50 0.14mg./L

Fish(RainbowTrout):21 DayNOEC 0.15mg./L

Environmental Fate

The active ingredient clodinafop-propargyl is biologically degraded by microorganisms in soil or water, and is also degraded by soil hydrolysis and photolysis. It has a low bioaccumulation potential. It is not persistent in the environment, with DT50 values of less than one day in soil or natural water. The mobility in soil is low to moderate. This formulation as a bulk liquid sinks in water (24 hr observation) and gradually disperses as an emulsion.

SECTION 13: DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT DISPOSAL: For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for cleanup of spills.

CONTAINER DISPOSAL: Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Do not reuse container for any purpose. If applicable, return container in accordance with return program. If a recyclable container, dispose of at a container collection site. Contact local distributor, dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site, triple or pressure rinse the empty container adding rinsings to spray tank, and make container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

SECTION 14: TRANSPORT INFORMATION

CANADIAN TDG CLASSIFICATION:

Road & Rail Transport: This product is exempt from classification as a Dangerous Good in packs less than 450 kg or litres. For bulk shipments this product is a class 9, UN 3082

TDG

UN number	3082
Labels	9
Packaging group	III
Marine pollutant	Marine pollutant
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clodinafop)

SECTION 15: REGULATORY INFORMATION

CANADIAN REGULATIONS:

Hazardous Products Act Information: WHMIS 2015 Classification

This product is exempt under WHMIS2015.

Pest Control Products (PCP) Act Registration No.: 29711

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act (PCPA). These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Read the approved PCPA label prior to using or handling this pest control product.

SECTION 16: OTHER INFORMATION**NFPA 704 (National Fire Protection Association):**

Health - 2 Flammability - 2 Instability - 2 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 2 Physical Hazard - 2 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard