

SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product Name: AGRI STAR CRUSH'R 540

PCP Reg. No.: 31655

Product use: Herbicide

Supplier's name and address:

Agri Star Canada ULC
210, 276 Midpark Way SE
Calgary, Alberta
Canada T2X 1J6
(403) 873-5177

Emergency Telephone #:
1-800-424-9300 (CHEMTREC)

SECTION 2 — HAZARDS IDENTIFICATION

Physical Hazards: None

Health Hazards: Acute Toxicity (Inhalation) - Category 4
Eye Irritation - Category 2B

Environmental Hazards: Hazardous to aquatic environment, acute - Category 2

Signal Word: WARNING

Hazard Statements: Harmful if inhaled. Causes serious eye irritation. Toxic to aquatic life.



Precautionary Statements: Avoid contact with skin, eyes and clothing. Wear goggles or face shield during mixing/loading. Wear a long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. After use, wash hands and other exposed skin. Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component	CAS No.	Percentage (%)
Glyphosate-potassium	70901-12-1	47-50

Content Listed on Product Label
Glyphosate, present as potassium salts 540 g a.e./L

SECTION 4 – FIRST AID MEASURES

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by the poison control center or doctor. 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 center 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.

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.

Take the container, label or product name and Pest Control Product Registration Number with you when calling a poison control center or doctor or going for treatment.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing Media: Water fog, alcohol foam, carbon dioxide, dry chemical.

Special Firefighting Procedures: Firefighters should wear self-contained breathing apparatus and full protective clothing when fighting chemical fires. Minimize and contain water runoff.

Flash Point:N/A

Conditions of Flammability:None

Hazardous Decomposition Products: ...This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode. Decomposition under fire conditions may produce gases such as oxides of carbon, nitrogen and phosphorous.

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 2 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Use safety equipment and procedures appropriate to the size of the spill. Keep unnecessary people away. Avoid runoff to natural waters and sewers. Surround and absorb spills with inert material such as perlite, sawdust, clay granules, vermiculite, sand or dirt. Contain all affected material in a closed, labeled container for proper disposal. Isolate from other waste materials. Clean contaminated area such as hard surfaces with detergent and water, collecting cleaning solution for proper disposal. Large spills to soil or similar surfaces may necessitate removal of top soil.

SECTION 7 – HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Wear goggles or face shield during mixing/loading. Wear coveralls over a long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. After use, wash hands and other exposed skin. Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Do not eat, drink or smoke when using this product.

Storage: Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. May be stored at any temperature. Shake well before using.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Parameters:

Component	TWA*	STEL*	Note
Glyphosate-potassium	N/E	N/E	None found

*Time Weighted Average, 8-hour unless otherwise noted

**Short Term Exposure Level

N/E – Not Established

Engineering Controls: Use only outdoors or in a well-ventilated area.

Personal Protective Equipment: Goggles or face shield, coveralls, long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical data are typical values but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification. If no value is determined for the formulation, the value listed is the most relevant value of the predominate ingredient(s).

Physical state and appearance: Clear, yellow, viscous liquid
Odor: Odorless to slight amine-like odor
Odor Threshold: No data
pH: 4.3-5.3
Melting Point: No data
Freezing Point: < 32°F / 0°C
Boiling Point: No data
Flash Point: Will not flash
Evaporation Rate: No data
Flammability: No data
Explosive Limits: No data

Vapor Pressure: 1.75 x 10⁻⁷ mmHg (1.31 x 10⁻⁵ Pa) @ 77°F / 25°C (free
Glyphosate acid).
Vapor Density: (Air=1.0): N/Ap
Density: 1.33-1.37 g/mL
Solubility: The product is miscible with water.
Partition Coefficient: No data
Auto Ignition Temperature: No data
Decomposition Temperature: No data
Viscosity:..... 16 centistokes @ 68°F / 20°C; 8 centistokes @ 104°F / 40°C.

SECTION 10 — STABILITY AND REACTIVITY

Reactivity: This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.

Chemical Stability: Stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur. This product can react with caustic (basic) materials to liberate heat. This is not a polymerization but rather a chemical neutralization in an acid base reaction.

Conditions to Avoid: Excessive heat. Do not store near heat or flame

Incompatible Materials: Avoid contact with strong acidic, basic or oxidizing agents. This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.

Hazardous Decomposition Products: Under fire conditions, may produce gases such as oxides of carbon, nitrogen and phosphorous.

SECTION 11 — TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals. Data obtained on similar products and on components are summarized below.

Likely Routes of Exposure: Inhalation, ingestion, skin and eye contact.

Acute oral toxicity Rat, LD₅₀ (mg/kg): >5000

Acute dermal toxicity Rabbit, LD₅₀(mg/kg): >5000

Acute inhalation toxicity Rat, LC₅₀(mg/L): >1.20 (4-hour)

Skin irritation Rabbit: Moderate

Eye irritation Rabbit: Moderate

Skin sensitization Guinea Pig: Not considered as a contact dermal sensitizer

Mutagenicity: Not mutagenic

Chronic effects/carcinogenicity: NOEL toxicity: ~ 8,000 mg/kg diet. Target organs/systems: eyes. Other effects: decrease of body weight gain, histopathologic effects. NOEL tumour: > 20,000 ppm. Tumours: none.

Toxicity to reproduction/fertility: NOEL toxicity: 10,000 ppm. NOEL reproduction: > 30,000 mg/kg diet. Target organs/systems in parents: none. Other effects in parents: decrease of body weight gain. Target organs/systems in pups: none. Other effects in pups: decrease of body weight gain. Effects on offspring only observed with maternal toxicity.

Developmental toxicity/teratogenicity: ... Rat, oral, 6 - 19 days of gestation: NOEL toxicity: 1,000 mg/kg body weight. NOEL development: 1,000 mg/kg body weight. Other effects in mother animal: decrease of body weight gain, decrease of survival. Developmental effects: weight loss, post-implantation loss, delayed ossification. Effects on offspring only observed with maternal toxicity. Rabbit, oral, 6 - 27 days of gestation: NOEL toxicity: 175 mg/kg body weight. NOEL development: 175 mg/kg body weight. Target organs/systems in mother animal: none. Other effects in mother animal: decrease of survival. Developmental effects: none

SECTION 12 — ECOLOGICAL INFORMATION

This section is intended for use by eco-toxicologists and other environmental specialists. Data obtained on similar products and on components are summarized below.

Ecotoxicity:

Aquatic Toxicity:

Rainbow trout:	96-Hour LC ₅₀ (mg/L)	>3.1
Bluegill sunfish:	96-Hour LC ₅₀ (mg/L)	>1000
Daphnia:	48-Hour EC ₅₀ (mg/L)	>930
Algae: Selenastrum	72-Hour EC ₅₀ (mg/L)	35-54
Algae: Navicula	120-Hour EC ₅₀ (mg/L)	No data

Avian toxicity

Bobwhite quail:	5-d Dietary LC ₅₀ (mg/kg).....	>4640 Glyphosate acid
Mallard duck:	5-d Dietary LC ₅₀ (mg/kg).....	>4640 Glyphosate acid

Arthropod toxicity:

Honey bee:	LD ₅₀ >250 µg/bee (48 h contact) Glyphosate acid
	LD ₅₀ >200 µg/bee (96 h oral) Glyphosate acid

Soil organism toxicity, invertebrates:

Earthworm:.....	>10,000 mg/Kg dry soil
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Persistence and Degradability: Glyphosate is degraded microbially to aminomethyl phosphonic acid (AMPA), which is further degraded to simpler molecules. Representative field soil half-lives range from 1 to 130 days depending on soil and climatic conditions.

Bioaccumulation Potential: Negligible.

Mobility in Soil: Glyphosate and AMPA are strongly adsorbed to soil. Essentially immobile.

Other Adverse Effects: No data.

SECTION 13 — DISPOSAL CONSIDERATIONS

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Disposal should be made in accordance with federal, provincial and local regulations.

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 — TRANSPORTATION INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

CANADA:

TDG Classification – Road/Rail:

Not regulated for transport by road/rail

UNITED STATES:

DOT Classification – Ground:

Non Regulated

IMDG Water Transportation:

Non Regulated

IATA:

Non Regulated

SECTION 15 — REGULATORY INFORMATION

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. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control product label:

WARNING - EYE AND SKIN IRRITANT

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is designed to comply with the Globally Harmonized System (GHS) of chemical hazard classification. The information given here is not necessarily exhaustive but is representative of relevant, reliable data. Follow all local/regional/national/international regulations.

HMIS Rating: 2 Health; 1 Flammability; 0 Reactivity

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY

THE Pest Management Regulatory (PMRA)- APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by product labeling and provincial legislation, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the PMRA-approved label.

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