

Belchim Crop Protection Canada, Inc.

SAFETY DATA SHEET

Issue Date 17-Sep-2026

Version #1

1. IDENTIFICATION**Product identifier****Product Name** Valor Herbicide**Other means of identification****Synonyms** Carfentrazone-ethyl: ethyl (*RS*)-2-chloro-3-[2-chloro-5-(4-difluoromethyl-4,5-dihydro-3-methyl-5-oxo-1*H*-1,2,4-triazol-1-yl)-4-fluorophenyl]propionate(IUPAC)**Registration Number(s)** PCP No. 36061**Recommended use of the chemical and restrictions on use****Recommended Use** Herbicide**Uses advised against** Use according to label**Supplier's details**Belchim Crop Protection Canada Inc.
104 Cooper Drive, Unit 3
Guelph ON N1C 0A4
1-866-613-3336**Emergency Telephone** For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, Call: 1-866-336-2983.**2. HAZARDS IDENTIFICATION****Classification:****GHS classification in accordance with the Hazardous Products Regulations**Eye irritation : Category 2B
Aspiration hazard: Category 1**Label elements****Danger****Hazard statements**H304 May be fatal if swallowed and enters airways.
H320 Causes eye irritation.**Precautionary statements - Prevention**

P264 Wash skin thoroughly after handling.

Precautionary statements - Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P331 Do NOT induce vomiting.

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P337 + P313 If eye irritation persists: Get medical advice/ attention.

Precautionary statements - Storage

P405 Store locked up.

Precautionary statements - Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Name	CAS No.	Concentration (% w/w)
Solvent naphtha (petroleum), heavy arom.	64742-94-5	>= 10 - < 30 *
carfentrazone-ethyl(ISO)	128639-02-1	>= 10 - < 30 *

* Actual concentration or concentration range is withheld as a trade secret

4. FIRST AID MEASURES

Description of necessary first aid measures

Eye contact	Flush eyes with clean water, holding eyelids apart for a minimum of 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. If eye irritation persists, consult a specialist.
Skin contact	Immediately remove contaminated clothing and wash skin, hair and fingernails thoroughly with soap and water. Flush skin with plenty of water for 15-20 minutes.
Inhalation	Move victim to fresh air. If not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
Ingestion	Rinse mouth. Do NOT induce vomiting. May result in aspiration into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms and effects, both acute and delayed	May be fatal if swallowed and enters airways. Causes eye irritation.
Protection of first-aiders	First Aid responders should pay attention to self-protection and use the recommended protective clothing Avoid inhalation, ingestion and contact with skin and eyes. If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Indication of immediate medical attention and special treatment needed, if necessary	There is no specific antidote if this product is ingested. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

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

Unsuitable extinguishing media High volume water jet

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Specific hazards during fire fighting	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	No hazardous combustion products are known
Further information	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Advice for firefighters	
<u>Firefighting instructions</u>	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flammable resistant/retardant clothing

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.
Other	For further clean-up instructions, call Belchim Crop Protection Canada, Inc. Emergency Telephone number listed in Section 1 "Product and Company Identification" above.
Environmental precautions	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
Methods and materials for containment and cleaning up	Never return spills in original containers for re-use. Pick up and transfer the spilled material to a properly labeled container. For spills on concrete or other non-porous surfaces, the area can be cleaned using a small quantity of soap and water. Do not allow the cleaning solution to enter drains. Use an inert absorbent material to soak up the cleaning solution and transfer it to the properly labeled container. When the spill occurs on soil, the only effective way to decontaminate the area is to remove the top 5 to 7 centimeters of soil.

7. HANDLING AND STORAGE

Handling	KEEP OUT OF REACH OF CHILDREN. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Avoid breathing vapours or spray mist. Wear full protective clothing and equipment (see Section 8). After work, rinse gloves and remove protective equipment, and wash hands thoroughly with soap and water after handling, and before eating, tobacco use, drinking, applying cosmetics or using the toilet. Wash contaminated clothing before re-use and separate from household laundry. Keep containers closed when not in use. Protect product, wash or rinse water, and contaminated materials from uncontrolled release into the environment, or from access by animals, birds or unauthorized people.
Storage	Store in a place accessible by authorized persons only. Store in original container. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards. The product is stable under normal conditions of warehouse storage. Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.
Materials to avoid	Do not store near acids.
Further information on storage stability	No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), heavy arom.	64742-94-5	TWA	200 mg/m ³ (total hydrocarbon vapor)	CA AB OEL
		TWA	200 mg/m ³ (total hydrocarbon vapor)	ACGIH
carfentrazone-ethyl (ISO)	128639-02-1	TWA (Inhalable particulate matter)	1 mg/m ³	ACGIH

Appropriate engineering controls

Appropriate engineering controls

Avoid splashing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use only outdoors or in a well-ventilated area.

Environmental exposure controls

Prevent leakage or spillage. Prevent contaminated water run-off.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Where eye contact is likely, wear chemical goggles or a full-face shield. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin and Body Protection

Impervious clothing Long sleeved clothing. Footwear protecting against chemicals. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hand protection

Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Respiratory protection

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Hygiene measures

Avoid contact with skin, eyes and clothing. This product should be used only by all personnel thoroughly trained to handle it. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Do not inhale aerosol. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Off-white liquid
Physical State	Liquid
Color	Off-white
Odor	slight pungent smell
Odor threshold	No information available
pH	4.0 - 6.0
Density	1.0567 g/cm ³ (20 °C)
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	104°C
Evaporation Rate	No information available
Flammability (solid, gas)	Not Applicable
Flammability Limit in Air	

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Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

10. STABILITY AND REACTIVITY

Reactivity	No hazardous reactions if stored and handled as prescribed/indicated.
Chemical stability	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions	None reasonably foreseeable. No decomposition if stored and applied as directed.
Conditions to avoid	Avoid extreme temperatures.
Incompatible materials	Strong acids. Strong bases. Strong oxidizers.
Hazardous decomposition products	No decomposition if used as directed.

11. TOXICOLOGICAL INFORMATION

The acute toxicity information of the formulated product:

LD ₅₀ Oral	4077 mg/kg (rat)
LD ₅₀ Dermal	>4000 mg/kg (rat)
LC ₅₀ Inhalation	> 6.31mg/L 4 hr (rat)
Serious eye damage/eye irritation	Mild eye irritant (rabbit)
Skin corrosion/irritation	Not a skin irritant (rabbit results: Mild skin irritation)
Sensitization	Not a skin sensitizer (Guinea Pig)
Aspiration toxicity	The mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Components:

Solvent naphtha (petroleum), heavy arom.:

LD ₅₀ Oral	>5000 mg/kg (rat)
LD ₅₀ Dermal	>2000 mg/kg (rat)
LC ₅₀ Inhalation	> 4.688 mg/L 4 hr (rat)
Serious eye damage/eye irritation	Not eye irritant (rabbit)
Skin corrosion/irritation	Not a skin irritant(rabbit)
Sensitization	Not a skin sensitizer (Guinea Pig)
Aspiration toxicity	May be fatal if swallowed and enters airways.

Carfentrazone-ethyl:

LD ₅₀ Oral	5143 mg/kg (rat)
LD ₅₀ Dermal	>4000 mg/kg (rat)
LC ₅₀ Inhalation	> 5.09 mg/L 4 hr (rat)
Serious eye damage/eye irritation	Not eye irritant (rabbit)

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Skin corrosion/irritation	Not a skin irritant(rabbit)
Sensitization	Not a skin sensitizer (Guinea Pig)
Aspiration toxicity	The substance does not have properties associated with aspiration hazard potential.

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

Assessment STOT Specific target organ toxicity – single exposure	Solvent naphtha (petroleum), heavy arom.: Not classified. Carfentrazone-ethyl: Not classified.
Assessment STOT Specific target organ toxicity – repeated exposure	Solvent naphtha (petroleum), heavy arom.: Not classified. Carfentrazone-ethyl: Not classified.
Mutagenicity	Solvent naphtha (petroleum), heavy arom.: Not classified. Carfentrazone-ethyl: Not classified.
Assessment Carcinogenicity	Solvent naphtha (petroleum), heavy arom.: Not classified. Carfentrazone-ethyl: Not classified.
Reproductive toxicity	Solvent naphtha (petroleum), heavy arom.: Not classified. Carfentrazone-ethyl: Not classified.
Developmental Toxicity	Solvent naphtha (petroleum), heavy arom.: Not classified. Carfentrazone-ethyl: Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	Solvent naphtha (petroleum), heavy arom.: Rainbow trout (<i>Oncorhynchus mykiss</i>) LL ₅₀ : 2-5 mg/l Exposure time: 96 h
	Carfentrazone-ethyl: Rainbow trout (<i>Oncorhynchus mykiss</i>) LC ₅₀ : 2.55 mg/l Exposure time: 96 h
	NOEC Rainbow trout (<i>Oncorhynchus mykiss</i>) 22 µg/l Exposure time: 89 d
Toxicity to other aquatic plants	Solvent naphtha (petroleum), heavy arom.: Green algae (<i>Pseudokirchneriella subcapitata</i>) EL ₅₀ : 1-3 mg/l Exposure time: 24 h
	Carfentrazone-ethyl: EC ₅₀ (<i>Anabaena flos-aquae</i> (cyanobacterium)): 0.012 mg/l Exposure time: 72 h NOEC (algae): 0.001 mg/l Exposure time: 96 h EC ₅₀ (<i>Lemna gibba</i> (gibbous duckweed)): 0.0057 mg/l Exposure time: 14 d EC ₅₀ (<i>Selenastrum capricornutum</i> (green algae)): 0.0133 mg/l Exposure time: 72 h
Acute toxicity to aquatic invertebrates	Solvent naphtha (petroleum), heavy arom.:

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*Daphnia*EL₅₀: 1.4 mg/l

Exposure time: 48 h

*Daphnia*EL₅₀: 0.89 mg/l

Exposure time: 21 d

Carfentrazone-ethyl:

*Daphnia*EC₅₀: >9.8 mg/l

Exposure time: 48 h

Persistence and Degradability

Solvent naphtha (petroleum), heavy arom.: Readily biodegradable.

Carfentrazone-ethyl: Not readily biodegradable.

Bioaccumulative potential

Solvent naphtha (petroleum), heavy arom.:

Bioaccumulation: The substance has a potential to bioaccumulate.

Carfentrazone-ethyl:

Bioaccumulation is unlikely.

Mobility in soil

Solvent naphtha (petroleum), heavy arom.:

Distribution among environmental compartments: Expected to partition to sediment and wastewater solids. Moderately volatile.

Carfentrazone-ethyl:

Distribution among environmental compartments: The substance and its soil metabolites have a potential for being mobile, but were not detected in a field leaching study.

Other adverse effects

Product:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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.

Contaminated packaging

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.

14. TRANSPORT INFORMATION

TDG

UN number

UN 3082

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Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Carfentrazone-ethyl)
Class	9
Packing group	III
Labels	9
Marine pollutant	yes

UNRTDG

UN number	UN 3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Carfentrazone-ethyl)
Class	9
Packing group	III
Labels	9
Environmentally hazardous	yes

IATA-DGR

UN number	UN 3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Carfentrazone-ethyl)
Class	9
Packing group	III
Labels	Miscellaneous
Environmentally hazardous	yes

IMDG-Code

UN number	UN 3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Carfentrazone-ethyl)
Class	9
Packing group	III
Labels	9
EmS Code	F-A, S-F
<u>Marine pollutant</u>	yes

Further information

None.

15. REGULATORY INFORMATION

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The ingredients of this product are reported in the following inventories:

TCSI	Not in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AICS	Not in compliance with the inventory
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
NZIoC	Not in compliance with the inventory

Canadian lists

No substances are subject to a Significant New Activity Notification.

Labelling requirements under Pest Control Products Act

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

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. The following is the hazard information required on the pest control product label:

CAUTION

EYE AND SKIN IRRITANT

KEEP OUT OF THE REACH OF CHILDREN.

Hazards to Humans and Domestic Animals

Causes eye and skin irritation. DO NOT get in eyes or on skin.

16. OTHER INFORMATION

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Disclaimer

The information provided in this Material 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