Maxunitech North America, Inc.
27 Goleta Point Drive,
Corona del Mar, CA 92625, USA Tel: 949-632-6765

SAFETY DATA SHEET

Issue Date 01-Feb-2021 **Revision Date** 01-Feb-2021 **Version** #5

1. IDENTIFICATION

Product identifier

Product Name Maxunitech Carfentrazone-ethyl 240EC Herbicide

Other means of identification

Product Code 33127

Synonyms CARFENTRAZONE-ETHYL: ethyl α,2-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl] -4-fluorobenzenepropanoate (CAS name); ethyl (RS)-2-chloro-3-[2-chloro-5-(4-difluoromethyl-4,5-dihydro-3-methyl-5- oxo-1H-1,2,4-triazol-1-yl) -4-fluorophenyl] propionate (IUPAC name)

Registration Number(s) PCP No. 33127

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide

Uses advised against Use according to label

Details of the supplier of the safety data sheet

Manufacturer Address
Maxunitech North America, Inc.
27 Goleta Point Drive,
Corona del Mar, CA
92625, USA
Website:
www.maxunitechna.com.

Emergency telephone number

Company Phone Number 86-571-28007837
949-632-6765

Emergency Telephone POISON CONTROL CENTER: 1- 800-222-1222
NPIC: 1-800-858-7378 (Monday through Friday, 8:00 to 20:00 Pacific Standard Time.)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canadian Workplace Hazardous Material Information System (WHMIS)

Hazard Class	Category	Hazard Statement
Carcinogenicity	2	H351
Aspiration Toxicity	1	H304

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Label elements

Emergency Overview

DANGER

Hazard Statements:

Health Hazards

H304 - May be fatal if swallowed and enters airways

H351 - Suspected of causing cancer

Precautionary statements:

Prevention

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

P308 + P313 - If exposed or concerned: Get medical advice/attention

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P331 - Do NOT induce vomiting

Storage

P405 - Store locked up

Disposal

P501 - Dispose of contents/container according to label directions

Appearance Brown orange liquid **Physical state** Liquid **Odor** Aromatic

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Mild eye irritation. Repeated or prolonged contact may cause allergic reactions in very susceptible persons. Very toxic to aquatic life with long lasting effects.

Unknown acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Not applicable

Mixture

Chemical Name	CAS No	%
Naphtha (petroleum), heavy aromatic	64742-94-5	<70
Carfentrazone-ethyl	128639-02-1	24
Calcium alkyl benzene sulphonate / isobutanol	26264-06-2 / 78-83-1	<3
1-Methyl-2-pyrrolidone	872-50-4	<3

*The exact concentration of composition has been withheld as a trade secret. If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice Call a poison control center or doctor for treatment advice. Have the product containers or label with you when calling a poison control center or doctor, or going for treatment.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician. Call a poison control center or doctor for treatment advice.

Inhalation Move person to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician or poison control center immediately. Call a poison control center or doctor for treatment advice.

Ingestion Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms Central nervous system effects. Gastrointestinal effects.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treatment is symptomatic and supportive. Contains petroleum distillates. Do not induce vomiting unless told to do so by the poison centre or doctor. Vomiting may cause aspiration pneumonia.

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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO_2, water spray or regular foam. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal. Water spray, fog or regular foam.

Unsuitable extinguishing media None.

Specific hazards arising from the chemical
Combustible material. May support combustion at elevated temperatures. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous combustion products Carbon monoxide (CO). Carbon dioxide (CO_2). Hydrogen chloride. Hydrogen fluoride. Nitrogen oxides (NOx). Sulfur oxides.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Keep away from sources of ignition. Prevent fire-fighting water from entering surface water or groundwater. Cool containers with spray water from a safe distance. Never use welding or cutting torch on or near container (even empty) because product may ignite explosively.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away and upwind of spill/leak.

For emergency responders Use personal protection recommended in Section 8. Ventilate the area.

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Sweep up and shovel into suitable containers for disposal. Dispose of waste as indicated in Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Keep away from heat/sparks/open flames/hot surfaces. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Do not breathe dust/ fume/ gas/ mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

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Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep out of the reach of children and animals. Keep away from food, drink and animal feeding stuffs. Keep in properlylabeled containers.
Packaging materials	Do not reuse container.
Incompatible materials	Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Carfentrazone-ethyl (128639-02-1)	TWA: 1 mg/m^3	-	-
Isobutanol (78-83-1)	-	PEL: 300 mg/m³ PEL: 100 ppm	TWA: 150 mg/m³ TWA: 50 ppm
Chemical Name	**Canada - Ontario**	**Canada - Québec**	**United Kingdom**
Isobutanol (78-83-1)	TLV: 50 ppm	TLV: 152 mg/m³	TLV: 154 mg/m³ TLV: 50 ppm STEL: 231 mg/m³ STEL: 75 ppm
Methyl pyrrolidone (872-50-4)	TLV: 400 mg/m³	-	TWA: 40 mg/m³ TWA: 10 ppm STEL: 80 mg/m³ STEL: 20 ppm

Appropriate engineering controls

Engineering Controls	Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear suitable protective clothing. Wear protective butyl rubber gloves. Protective shoesor boots.
Respiratory protection	Ensure adequate ventilation, especially in confined areas. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene Considerations	When using do not eat, drink or smoke. Regular cleaning of equipment, work area and

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clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown Orange Liquid
Physical State	Liquid
Color	Brown orange
Odor	Aromatic
Odor threshold	No information available
pH	5.- 7 (1% solution)
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	58.8 °C / 137.8°F Closed cup
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	0.98-1.0 g/ml
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, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Molecular weight	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
None under normal use conditions
Chemical stability
Stable under recommended storage conditions.
Possibility of Hazardous Reactions
None under normal processing.
Conditions to avoid
Heat, flames and sparks. Elevated Temperature. Storage near to reactive materials.
Incompatible materials
Strong oxidizing agents.
Hazardous Decomposition Products
Thermal decomposition can lead to release of irritating and toxic gases and vapors. Nitrogen oxides (NOx). Carbon oxides, Hydrogen chloride, Hydrogen fluoride, Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

LD50 Oral	4077 mg/kg (rat)
LD50 Dermal	> 4000 mg/kg (rat)
LC50 Inhalation	> 6.31 mg/L 4 hr (rat)

Serious eye damage/eye irritation Mildly irritating.

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Skin corrosion/irritation	Mildly irritating (rabbit).
Sensitization	Non-sensitizing

Information on toxicological effects

Symptoms	Signs of toxicity in laboratory animals included mydriasis, cyanosis, ataxia, dyspnea, lacrimation, and diarrhea.

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

Chronic toxicity	Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver and spleen weight.
Mutagenicity	Carfentrazone-ethyl: Not genotoxic in laboratory studies.
Carcinogenicity	Carfentrazone-ethyl: No evidence of carcinogenicity from animal studies. There was no evidence of carcinogenic activity of naphthalene in male mice, but there was some evidence of carcinogenic activity in female mice and clear evidence of carcinogenic activity in male and female rats in 2-year inhalation studies conducted by the National Toxicology Program (NTP).
Neurological effects	Carfentrazone-ethyl: Not neurotoxic.
Reproductive toxicity	Carfentrazone-ethyl: No toxicity to reproduction in animal studies.
Developmental toxicity	Carfentrazone-ethyl: Not teratogenic in animal studies.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Neurological effects	Carfentrazone-ethyl: Not neurotoxic.
Aspiration hazard	Potential for aspiration if swallowed. Vomiting after ingestion of this product may cause aspiration of aromatic hydrocarbons into the lungs, which may result in fatal pulmonary edema.

Naphtha (petroleum), heavy aromatic:
Carcinogen: Suspected of causing cancer.
Specific target organ toxicant (central nervous system): May cause drowsiness or dizziness.
Aspiration toxicant: May be fatal if swallowed and enters airways.

Calcium alkyl benzene sulphonate in isobutanol:
Irritant effect on eyes: Risk of serious damage to eyes (rabbit eye).
Irritant effect on skin: Irritant (rabbit)

Methyl pyrrolidone:
Skin corrosion/irritation: Cause skin irritation.
Serious eye damage/irritation: Cause serious eye irritation.
Reproductive toxicity: May damage the unborn child.
Specific target organ toxicity - single exposure: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure: Cause damage to organs through prolonged or repeated exposure: Liver, Respiratory system, Bone marrow, Kidney, Spleen, Adrenal gland.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life with long lasting effects

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Carfentrazone-ethyl (128639-02-1)				
Active Ingredient(s)	Duration	Species	Value	Units
	72 h EC50	Algae	0.012	mg/L
	96 h LC50	Fish	1.6	mg/L
	48 h LC50	Daphnia	>9.8	mg/L
	96 h NOEC	Algae	1.0	µg/L
	21 d NOEC	Fish	0.0187	mg/L
	21 d NOEC	Crustacea	0.22	mg/L

Chemical name	**Toxicity to algae**	**Toxicity to fish**	**Toxicity to daphnia and other aquatic invertebrates**
Naphtha (petroleum), heavy aromatic 64742-94-5	72 h EC50: = 2,5 mg/L (Skeletonema costatum)	96 h LC50: = 1740 mg/L (Lepomis macrochirus) static 96 h LC50: = 19 mg/L (Pimephales promelas) static 96 h LC50: = 2,34 mg/L (Oncorhynchus mykiss) 96 h LC50: = 41 mg/L (Pimephales promelas) 96 h LC50: = 45 mg/L (Pimephales promelas) flow-through	48 h EC50: = 0,95 mg/L (Daphnia magna)
Calcium alkyl benzene sulphonate in isobutanol (26264-06-2 78-83-1)	No data available	96 h LC50: >1-10 mg/L (Danio rerio (zebra fish))	No data available

Persistence and degradability
Carfentrazone-ethyl: Non-persistent. Readily hydrolyzed. Not readily biodegradable.

Bioaccumulation
Carfentrazone-ethyl: The substance does not have a potential for bioconcentration.

Other adverse effects
Unknown

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Pesticide wastes may be acutely hazardous. Improper disposal is a violation of federal law. Disposal should be in accordance with applicable regional, national and local laws and regulations. Contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance on proper disposal of waste product.

Contaminated packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations. Consult product label for additional information. Do not reuse container

14. TRANSPORT INFORMATION

DOT
This material is a combustible liquid and is, therefore, not subject to the hazardous materials regulations when in non-bulk packages shipped within the USA per 49 CFR 173.150(f)(2).

UN/ID no UN1993
Proper Shipping Name **Flammable** liquid, n.o.s. (Carfentrazone-ethyl)
Hazard class 3
Packing Group III
Marine Pollutant Carfentrazone-ethyl.

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TDG

UN/ID no	UN1993
Proper Shipping Name	**Flammable** liquid, n.o.s. (Carfentrazone-ethyl)
Hazard class	3
Packing Group	III

ICAO/IATA

UN/ID no	UN1993
Proper Shipping Name	**Flammable** liquid, n.o.s. (Carfentrazone-ethyl)
Hazard class	3
Packing Group	III

IMDG/IMO

UN/ID no	UN1993
Proper Shipping Name	**Flammable** liquid, n.o.s. (Carfentrazone-ethyl)
Hazard class	3
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

CANADA

WHMIS Statement

This product has been classified in accordance with the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

WHMIS Hazard Class

B3 - Combustible liquid
D2A - Very toxic materials

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16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	**Health Hazards** 1	**Flammability** 2	**Instability** 0	**Special Hazards** -
HMIS	**Health Hazards** 1*	**Flammability** 2	**Physical hazard** 0	**Personal Protection** X

MSDS Creation Date	06-May-2011
Issue Date	01-Feb-2021
Revision Date	01-Feb-2021
Revision Note	Revision #4 (Revision Date: 26/04/2018) is superseded.

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