

SAFETY DATA SHEET
Command® 3 ME Microencapsulated Herbicide

SDS # : 1693-A
Revision date: 2018-01-17
Format: NA
Version 1.09



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Command® 3 ME Microencapsulated Herbicide

Other means of identification

Product Code(s) 1693-A

Synonyms Clomazone (F57020): 2-(2-chlorobenzyl)-4,4-dimethyl-1,2-oxazolidin-3-one (IUPAC name); 2-[(2-chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone (CAS Name)

Active Ingredient(s) Clomazone

Chemical Family Triazolinones

Alternate Commercial Name Command® 360 ME, Command® 36 CS, Command® 360 CS, Command® CS, Centium™ 36 CS, Cirrus™ 36 CS, Cirrus™ CS, Magister CS

PCP # 27827

Recommended use of the chemical and restrictions on use

Recommended Use: Herbicide

Restrictions on Use: Use as recommended by the label

Supplier Address

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
(215) 299-6000 (General Information)
msdsinfo@fmc.com (E-Mail General Information)

Emergency telephone number

For leak, fire, spill or accident emergencies, call:
1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 741-5970 (CHEMTREC - International)
1 703 / 527 3887 (CHEMTREC - Alternate)

Medical Emergencies:
1 800 / 331-3148 (ProPharma Group - U.S.A. & Canada)
1 651 / 632-6793 (ProPharma Group - All Other Countries - Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1B

GHS Label elements, including precautionary statements**EMERGENCY OVERVIEW****Warning****Hazard Statements**

H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled

**Precautionary Statements - Prevention**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves

Precautionary Statements - Response

P321 - Specific treatment (see supplemental first aid instructions on label)
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell

Precautionary Statements - Disposal

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

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Triazolinones.

Chemical name	CAS-No	Weight %
Clomazone	81777-89-1	31
Sodium Nitrate	7631-99-4	1-5
Calcium chloride	10043-52-4	1-5
1,6-hexanediamine (70%)	124-09-4	1-5

Synonyms are provided in Section 1.

4. FIRST AID MEASURES**Eye Contact**

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove

contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

Skin Contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

Inhalation

Move to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Ingestion

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms of overexposure include decreased activity, tearing eyes, bleeding from the nose and incoordination.

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), Water spray, Foam, Dry chemical.

Specific Hazards Arising from the Chemical

Not flammable

Explosion data

Sensitivity to Mechanical Impact
Sensitivity to Static Discharge

Not sensitive.

Not sensitive.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

Other

For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

Environmental Precautions

Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.

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

Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

7. HANDLING AND STORAGE

Handling

Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

Storage

Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.

Incompatible products

None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
1,6-hexanediamine (70%) (124-09-4)	TWA: 0.5 ppm	-	-	-
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Calcium chloride (10043-52-4)	-	-	TWA: 5 mg/m ³	-
1,6-hexanediamine (70%) (124-09-4)	TWA: 0.5 ppm	TWA: 0.5 ppm TWA: 2.3 mg/m ³	TWA: 0.5 ppm	TWA: 0.5 ppm TWA: 2.4 mg/m ³

Appropriate engineering controls

Engineering measures Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection For dust, splash, mist or spray exposure, wear chemical protective goggles.

Skin and Body Protection Wear long-sleeved shirt, long pants, socks, and shoes.

Hand Protection Protective gloves

Respiratory Protection For dust, splash, mist or spray exposures wear a filtering mask.

Hygiene measures Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

General information If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Brown Liquid
Physical State	Liquid
Color	Brown
Odor	Slight Aromatic
Odor threshold	No information available
pH	6.5 @ 20°C
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	> 94 °C / > 201 °F Tag 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
Density	9.59 lb/gal
Specific gravity	No information available
Water solubility	Dispersible in water

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	Not applicable
Chemical Stability	Stable.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks
Incompatible materials	None known.
Hazardous Decomposition Products	Carbon oxides (COx), nitrogen oxides (NOx), chlorine, hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral	> 5000 mg/kg (rat)
LD50 Dermal	> 5000 mg/kg (rat)
LC50 Inhalation	> 3.86 mg/L 4 hr (rat) - Maximum attainable concentration (zero mortality)
Serious eye damage/eye irritation	Non-irritating.
Skin corrosion/irritation	Non-irritating.
Sensitization	Mild sensitizer

Information on toxicological effects

Symptoms	Large dosages of clomazone ingested by laboratory animals produced signs of toxicity including ataxia, decreased activity, oral discharge, lacrimation, bloody tears, and nasal discharge.
-----------------	--

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

Chronic toxicity	Clomazone: Long-term exposure caused slight liver weight increase and hepatocyte enlargement in animal studies
Mutagenicity	Clomazone: Not genotoxic in animal studies
Carcinogenicity	Clomazone: No evidence of carcinogenicity from animal studies.
Neurological effects	Clomazone: Not neurotoxic
Reproductive toxicity	Clomazone: No toxicity to reproduction in animal studies.
Developmental toxicity	Clomazone: Not teratogenic in animal studies.
STOT - single exposure	None under normal use conditions.
STOT - repeated exposure	None under normal use conditions.
Target organ effects	Clomazone: Liver
Neurological effects	Clomazone: Not neurotoxic
Aspiration hazard	No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Sodium Nitrate 7631-99-4		Group 2A		

Legend:
 IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

12. ECOLOGICAL INFORMATION

Ecotoxicity

Clomazone (81777-89-1)				
Active Ingredient(s)	Duration	Species	Value	Units
Clomazone	72 h EC50	Algae	0.136	mg/L
	48 h EC50	Crustacea	12.7	mg/L
	96 h LC50	Fish	15.5	mg/L
	21 d NOEC	Fish	2.30	mg/L
	21 d NOEC	Crustacea	2.2	mg/L
	96 h NOEC	Algae	0.05	mg/L

Persistence and degradability Clomazone: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.

Bioaccumulation Clomazone: The substance does not have a potential for bioconcentration.

Mobility Clomazone: Moderately mobile, Has some potential to reach groundwater.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

Contaminated Packaging Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

14. TRANSPORT INFORMATION

DOT This material is not a hazardous material as defined by U.S. Department of Transportation at 49 CFR Parts 100 through 185.

TDG Not regulated

ICAO/IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Command® 3 ME Microencapsulated Herbicide

SDS # : 1693-A
Revision date: 2018-01-17
Version 1.09

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium Hydroxide 1310-73-2	1000 lb			X
Acetic Acid 64-19-7	5000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Sodium Hydroxide 1310-73-2	1000 lb 454 kg	
Acetic Acid 64-19-7	5000 lb 2270 kg	

FIFRA Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Causes eye irritation.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Sodium Nitrate 7631-99-4		X	X
1,6-hexanediamine (70%) 124-09-4	X	X	

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Clomazone 81777-89-1					X	X		
Sodium Nitrate 7631-99-4	X	X	X	X	X	X	X	X
Calcium chloride 10043-52-4	X	X	X	X	X	X	X	X
1,6-hexanediamine (70%) 124-09-4	X	X	X	X	X	X	X	X

Command® 3 ME Microencapsulated Herbicide

SDS # : 1693-A
Revision date: 2018-01-17
Version 1.09

Mexico - Grade Moderate risk, Grade 2

Chemical name	Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use -Threshold Quantities	Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities
Methylene diphenyl diisocyanate (polymeric)	100 5000 kg/yr	100 kg/yr

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 D2B - Toxic materials



16. OTHER INFORMATION

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

**Indicates a chronic health hazard.*

NFPA/HMIS Ratings Legend Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Revision date: 2018-01-17
Reason for revision: (M)SDS sections updated

Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. **NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN.** The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Use of this product is regulated by the U.S. Environmental Protection Agency (EPA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

Prepared By: FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2018 FMC Corporation. All Rights Reserved.

End of Safety Data Sheet