

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:

ALBAUGH, INC.
Ankeny, IA 50021

EMERGENCY TELEPHONE NUMBERS:

(800) 424-9300 (CHEMTREC, transportation and spills)

PRODUCT NAME

: **COMMANDO M**

CHEMICAL NAME

: Clopyralid: 3,6-Dichloro-2-pyridinecarboxylic acid

: MCPA-EHE: 2-methyl-4-chlorophenoxyacetic acid, 2-ethylhexyl ester

CHEMICAL FAMILY

: pyridine and phenoxy herbicides

PRODUCT CODE

: EPA Reg. No. 42750-91

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Clopyralid Acid	5.0	1702-17-6	Not Listed	Not Listed
2-methyl-4-chlorophenoxyacetic acid, 2-ethylhexyl ester (MCPA)	43.4	29450-45-1	10 mg/M3	10 mg/M3
Cyclohexanone	< 20.0%	108-94-1	50 ppm	20 ppm
Aromatic solvent containing: xylene	< 30.0%	64742-95-6	100 ppm	100 ppm
1,2,4-trimethylbenzene		95-63-6	Not listed	25 ppm
Cumene		98-82-8	50 ppm	50 ppm

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

HEALTH HAZARDS: Moderate eye irritant with temporary corneal injury possible.

PHYSICAL HAZARDS: Combustible. May release toxic fumes if burned.

ENVIRONMENTAL HAZARDS: Clopyralid is highly mobile in certain soil types. MCPA is toxic to aquatic organisms.

SECTION 4 - FIRST AID MEASURES

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 center or doctor for treatment advice. 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 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 SWALLOWED: 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

NOTE TO PHYSICIAN: Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

FLASHPOINT (method): >110 F (43 C) (SCC method)

FLAMMABLE LIMITS (LFL - UFL): Unknown

FIRE AND EXPLOSION HAZARD: May decompose in fire releasing irritating and toxic gases.

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid possible hazardous fumes and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off.

FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece and protective clothing.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen chloride, Oxides of nitrogen and sulfur, Chlorinated pyridine.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Wear appropriate safety equipment when handling.

STORAGE: Store in original container with lid tightly closed. Keep away from food, feed and drinking water. Combustible liquid, store in a well ventilated, dry place away from heat and other sources of ignition. Store above 32° F (0 C) and below 110 F (44C)

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 hour TWA, ppm): Refer to Section 3.

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION - Safety goggles or full face respirator if vapors cause eye discomfort.

CLOTHING - Long-sleeved shirt and long pants, Shoes plus socks.

GLOVES – Chemical resistant gloves such as barrier laminate or butyl rubber.

RESPIRATOR - When handling in enclosed areas where exposure limits may be exceeded, use a respirator with either an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G)

For containers of over 1 gallon, but less than 5 gallons: Mixers and loaders who do not use a mechanical system (such as probe and pump) to transfer the contents of this container must wear coveralls or a Chemical-resistant apron in addition to other required PPE.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Dark, reddish liquid.

ODOR: Sweet.

SPECIFIC GRAVITY: 0.97 – 1.03 g/ml @ 20 C (8.15 – 8.65 lb/gallon)*

pH: 7.0 – 8.0

VAPOR PRESSURE: 10 mmHg @ 23C

VAPOR DENSITY: > 1

WATER SOLUBILITY: Forms an emulsion

*Listed density is an approximate value and does not necessarily represent that of a specific batch.

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.

CONDITIONS TO AVOID: Avoid temperatures above (110°F, 43°C) and below 32°F (0°C).

INCOMPATIBILITY WITH OTHER MATERIALS: Acidic and basic materials, oxidizers, halogenated organics, brass, copper, zinc and aluminum metals.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, Oxides of nitrogen, Chlorinated pyridine.

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD ₅₀ (rat)	- > 2,000 mg/Kg males and 1,400 mg/Kg females
Dermal LD ₅₀ (rat)	- > 2,000 mg/Kg
Inhalation LC ₅₀ (rat)	- > 1.3 mg/L
Eye Irritation (rabbit)	- Moderate to severe
Skin Irritation (rabbit)	- Slight to moderate
Sensitization (guinea pig)	- Non-sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CARCINOGEN STATUS:

OSHA - Not listed
NTP - Not listed
IARC - Not listed

MUTAGENIC DATA: No evidence of mutagenic effects during *in vivo* or *in vitro* studies.

ADDITIONAL DATA: Not known to exhibit reproductive or teratogenic (birth defect) effects.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation or drinking purposes. Users are advised not to apply clopyralid where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow, or to soils that would allow direct introduction into an aquifer.

FISH TOXICITY: (MCPA acid)
 96 hour LC₅₀, Rainbow trout – 230 mg/L
 96 hour LC₅₀, Bluegill - unknown
AVIAN TOXICITY: (MCPA acid)
 Oral LD₅₀, Bobwhite quail – 370 mg/Kg
 Oral LD₅₀, Mallard duck - unknown
BEE TOXICITY: (MCPA acid) 0.1 mg/bee

FISH TOXICITY: (Clopyralid acid)
 96 hour LC₅₀, Rainbow trout - >100 mg/L
 96 hour LC₅₀, Bluegill - >100 mg/L
AVIAN TOXICITY: (Clopyralid acid)
 Oral LD₅₀, Bobwhite quail - >2000 mg/Kg
 Oral LD₅₀, Mallard duck - 1400 mg/Kg
BEE TOXICITY: (Clopyralid acid) Non-toxic

SECTION 13 - DISPOSAL CONSIDERATIONS

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

WASTE: Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations at an approved facility.

CONTAINER: Do not reuse container. Triple rinse (or equivalent). Then offer for recycling, reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION:

Containers ≤ 119 gallons - Not regulated.
 Containers > 119 gallons - NA1993, Combustible Liquid, N.O.S. (aromatic solvent, cyclohexanone), PG III, RQ (cyclohexanone)

DOT HAZARD CLASS: Combustible Liquid
IDENTIFICATION NUMBER: NA1993
DOT PACKING GROUP: PG III
DOT PRIMARY/SECONDARY LABEL: N/A
DOT PRIMARY/SECONDARY PLACARD: COMBUSTIBLE (> 119 gallons)
DOT EMERGENCY RESPONSE GUIDE #: 128

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: 5,000 lbs Cyclohexanone, (approximately 2,900 gallons of product)
 100 lbs Xylene, (approximately 2,000 gallons of product)

SARA TITLE III STATUS:
 311/312 Hazard Categories – Immediate & Delayed Health, Fire hazard
 313 Toxic Chemicals – None known
CALIFORNIA PROP 65: Not listed

SECTION 16 - OTHER INFORMATION

HMIS HAZARD RATINGS	HEALTH	2
	FLAMMABILITY	2
	PHYSICAL HAZARD	1
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

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REVISED DATE: September, 2008

REFERENCE: Revised DOT description in Section 14