

SAFETY DATA SHEET



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Date of Issue: May 2014
MSDS No. FMC/COM/1

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: COMMAND 480 EC HERBICIDE
(Non Flammable formulation)

Other Names: Clomazone.
Use: Agricultural Herbicide or the control of certain annual broadleaf weeds in a range of crops.
Company: FMC Australasia Pty Ltd.
Address: 5 Palmer Place, Murarrie, Qld 4172
Telephone Number: 07 3908 9208 **Fax Number:** 07 3908 9221
Emergency Telephone Number: 1800 033 111 (All hours - Australia wide).

SECTION 2 HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.
Combustible Liquid (C1).

GHS Classification:

Acute Toxicity-Oral: Category 4.
Aspiration Hazard- Category 1.
Eye Damage-Irritation: Category 2A.
Acute Toxicity-Inhalation: Category 4.

Signal Word: DANGER.

Hazard Statements:

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

Precautionary statements:

Prevention:

P261 Avoid breathing mist, vapours or spray.
P264 Wash hands, arms and face thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective equipment (see section 7).

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.
P330 Rinse mouth.
P331 Do NOT induce vomiting.

SECTION 2 HAZARDS IDENTIFICATION (Continued)

Storage and Disposal:

P405 Store locked up.

P501 Dispose of contents/container in accordance with national regulations.

Pictograms:



SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	CAS NUMBER	PROPORTION
Clomazone	81777-89-1	480 g/L
Liquid Hydrocarbons	64742-94-5	30 - 60%
Other ingredients determined not to be hazardous		10 - 30 % w/w

SECTION 4 FIRST AID MEASURES

FIRST AID

Swallowed: If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, do not induce vomiting. Give a glass of water. If any discomfort persists seek medical advice.

Eye: If in eyes, hold eyes open and flush with clean water until chemical is removed. If irritation occurs and persists, obtain medical attention.

Skin: If on skin wash with plenty of soap and water. Remove contaminated clothing. If irritation occurs and persists see a doctor. Launder contaminated clothing before re-use.

Inhaled: Remove patient to fresh air. If breathing discomfort occurs, obtain medical attention.

Advice to Doctors: Clomazone has generally low acute toxicity. This product may be irritating. Direct contact with eyes may produce corneal damage, especially if not washed out immediately. Inert ingredients contain aromatic solvents which may produce a chemical pneumonitis; therefore, vomiting is not recommended, and lavage requires intubation. Activated charcoal and cathartics will assist gastrointestinal tract evacuation.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Product is a combustible liquid (C1). Flash point 71°C.

Extinguishing media: Foam, CO₂ or dry chemical. Soft stream water fog if no alternatives. Contain all runoff.

Hazards from combustion products: On burning will emit toxic fumes of carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, etc.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated. Fight fire from maximum distance or protected area. Cool cans using water spray, and use caution when approaching containers. Contain all runoff.

SECTION 6 ACCIDENTIAL RELEASE MEASURES

Emergency procedures: Isolate and post spill area. Isolate and post spill area. Wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow length nitrile gloves and face shield or goggles. Large spills should be dyked or covered to prevent dispersal. Vacuum shovel or pump spilled material into an approved container and dispose of as listed in Section 13.

SECTION 6 ACCIDENTIAL RELEASE MEASURES (Continued)

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected. Dispose of waste as indicated in section 13.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Ensure containers are kept closed until using product. Harmful if inhaled or swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale vapour. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow length nitrile gloves and face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length nitrile gloves. If product in eyes, wash out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Conditions for Safe Storage: DO NOT store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed original container, in a cool well ventilated area, out of direct sunlight. Store in a room or place away from children, animals, food, feed stuffs, seed and fertilizers.

This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:

No exposure standard for clomazone has been established by Safe Work Australia.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Use in well ventilated area only. Use local exhaust at all process locations. Ventilate all transport vehicles prior to unloading. Keep containers closed when not in use.

Personal Protective equipment (PPE):

General: When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow length nitrile gloves and face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length nitrile gloves. If product in eyes, wash out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Straw yellow to tan coloured liquid.
Odour:	Mild aromatic hydrocarbon odour.
Boiling point:	Not available.
Freezing point:	Not available.
Specific Gravity:	Approximately 1.0 g/mL.
pH:	5 – 6.5.
Solubility in Water:	Product emulsifies in water. (clomazone = 1100 ppm).
Flammability:	Combustible liquid (C1).
Flashpoint (°C):	71°C.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES (Continued)

Corrosive hazard: Not known to be corrosive.
Flammability Limits (%): Not established.
Poisons Schedule: Product is schedule 6 (S6) poison.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Keep in a cool place. Keep away from sources of heat and naked flames.

Incompatible materials: Keep away from strong oxidizing agents.

Hazardous decomposition products: On burning will emit toxic fumes.

Hazardous reactions: Will not polymerise.

SECTION 11 TOXICOLOGICAL INFORMATION

Potential Health Effects:

Studies with laboratory animals have shown this product to have low oral, dermal and inhalation toxicity. Symptoms of overexposure to clomazone include decreased activity, tearing eyes, bleeding from the nose and incoordination.

Acute

Swallowed: The product has low toxicity; the oral LD₅₀ in the rat is 1406 mg/kg.

Eye: Moderately irritating to the eyes

Skin: This product has a low dermal toxicity. The dermal LD₅₀ in the rabbit is > 2000 mg/kg. It is non-sensitising to the skin. Skin contact may result in irritation with a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

Inhaled: Inhalation of vapour may produce irritation of the mucous membranes of the respiratory tract. Acute inhalation LC₅₀ = 4.47 mg/L/4 hour.

Chronic: No data available on this formulation. In studies with laboratory animals, clomazone did not cause reproductive toxicity, teratogenicity or carcinogenicity. Liver enlargement and elevated cholesterol levels are often noted in laboratory animals that have ingested large doses of clomazone during their lifespan. An overall absence of genotoxicity has been demonstrated in tests of mutagenicity, DNA damage and chromosomal aberrations.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No data is available on Command 480 EC Herbicide. Toxicity data is on the active constituent, Clomazone. Clomazone has moderate to slight toxicity to aquatic algae, arthropods and fish. Clomazone is slightly toxic to birds. Do not contaminate sewers, drains, dams, creeks or any other waterways with product or the used container..

Environmental Properties: Clomazone is readily degraded in soils under aerobic and anaerobic conditions (half life = 1 to 4.5 months). Clomazone is stable to chemical hydrolysis. Clomazone has a low potential for movement in the soil, and with a Log P_{ow} of 2.5 and a bioconcentration factor of 27, is unlikely to accumulate in the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills & Disposal: Isolate and post spill area. Wear prescribed protective clothing and equipment. Large spills should be dyked or covered to prevent dispersal. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution (ie organic solvent, detergent, bleach or caustic) and add the solution to the drums of wastes already collected.

SECTION 13 DISPOSAL CONSIDERATIONS (Continued)

Label for contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities.

Dangerous to Fish: Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

Disposal of empty containers: Triple pressure rinse containers before disposal. Add rinsings to the spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, State or Territory regulations. DO NOT burn empty containers or product.

SECTION 14 TRANSPORT INFORMATION

Transport: This product is not classified as a Dangerous Good. Product is a C1 combustible liquid.

SECTION 15 REGULATORY INFORMATION

Classified as a hazardous substance according to criteria of Safe Work Australia. Xi - Irritant, Xn - Harmful.

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is schedule 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 49604.

Product is not classified as a Dangerous Good.

Requirements concerning special training:

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

SECTION 16 OTHER INFORMATION

Issue Date: 28 May 2014. Valid for 5 years. (Revised to GHS classification).

Key to abbreviations and acronyms used in this SDS:

ADG Code: Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).

Ataxia: Inability to control the coordinate movements of the muscles.

Bradycardia: Is a resting heart rate of under 60 beats per minute (adults).

Carcinogen: An agent which is responsible for the formation of a cancer.

Clonic: An abnormality in neuromuscular activity characterized by rapidly alternating muscular contraction and relaxation.

Combustible Liquid: Liquids that ignite with a flash point greater than 60°C.

Flammable Liquid: Liquids that ignite with a flash point less than 60°C.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

Haematopoietic: Pertaining to the formation of blood or blood cells.

Lavage: The irrigation or washing out of an organ, as of the stomach or bowel.

Mutagen: An agent capable of producing a mutation.

Oedema: Accumulation of fluid in tissues.

NOHSC: National Occupational Health and Safety Commission.

Teratogen: An agent capable of causing abnormalities in a developing foetus.

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

SECTION 16 OTHER INFORMATION (Continued)

References

1. "Search Hazardous Substances". Safe Work Australia website. (2014).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United nations, 2009.

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End SDS