MAXIMUM ECONOMIC YIELD

Safety Data Sheet
MEYCHEM Technical Dicamba

1. PRODUCT AND COMPANY IDENTIFICATION

Product name
MEYCHEM Technical Dicamba

EPA Reg. No.
80967-16

Product Use
For Formulation Use Only

Common name
Dicamba

Chemical name
3,6-dichloro-o-anisic acid (IUPAC)
3, 6-dichloro-2-methoxybenzoic acid (CAS)

Company
MEY Corporation, 121 S. Estes Drive, Suite 101, Chapel Hill, NC 27514
Telephone: (919) 932-5800
Fax: (919) 932-5820
E-mail: safetydatasheets@meycorp.com

Emergency numbers
FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC – Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 1-703-527-3887 (collect calls accepted).

2. HAZARDS IDENTIFICATION

Classification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, Oral (Category 4), H302
Serious eye irritant (Category 1), H318

Label Elements

Signal word
DANGER

Hazard pictogram



Hazard statement
Harmful if swallowed.
Causes serious eye damage.

Precautionary statement

- Wash skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves, eye protection/face protection.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do and continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
- IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/ physician if you feel unwell.
- Avoid release to the environment.
- Dispose of contents/ container to an approved waste disposal plant.

Refer to Section 11 for toxicological and Section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient

3,6-dichloro-o-anisic acid (IUPAC)
3,6-dichloro-2-methoxybenzoic acid (CAS)

Composition

COMPONENT	CAS No.	% by weight (approximate)
3,6-dichloro-2-methoxybenzoic acid	1918-00-9	97.3
Other Ingredients	--	2.7

4. FIRST AID MEASURES

General advice

Consult a doctor/physician or call a poison control center. Show this safety data sheet to the doctor/physician in attendance. Move out of dangerous area.

Eye contact

If in eyes, hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for 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 treatment advice. Wash clothes and clean shoes before reuse.

Inhalation

If inhaled, move person to fresh air. If person is not breathing, call the emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Ingestion

Call 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.

Note to Physician

If swallowed, gastric lavage using an endotracheal tube may be preferred to vomiting. It is severely irritating to the eyes and mildly irritating to skin.

5. FIRE FIGHTING MEASURES

Extinguishing media

Use dry foam, dry chemical, carbon dioxide, or soft stream water fog only when fighting fires involving this material. Contain all runoff.

Special hazards

Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

Environmental precautions

Minimize use of water to prevent environmental contamination. See Section 6.

Hazardous products of combustion

Carbon dioxide, carbon monoxide, and hydrogen chloride gas.

Fire-fighting equipment

Self-contained breathing apparatus with full face-piece. Full firefighting turnout gear (Bunker gear). Equipment should be thoroughly decontaminated after use.

Fire fighting guidance

Evacuate the area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect fire extinguishing water to prevent environmental damage with excessive water runoff.

Flash point

Not available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid direct contact with spilled material or contaminated surfaces. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. If ordinary clothing becomes contaminated remove it immediately. Use personal protection recommended in Section 8.

Environmental precautions

Minimize spread. Contain spillage. Keep out of drains, sewers, ditches and water ways.

Methods for cleaning up

SMALL QUANTITIES: Sweep or scoop up small spills and place in appropriate recovery drums for disposal.

LARGE QUANTITIES: Contain large spills and recover for disposal. After removal, neutralize the spill area, tools and equipment with a dilute alkaline solution (soda ash or lime) followed by an appropriate alcohol (methanol, ethanol or isopropanol). Wash the spill area, tools, and equipment with a strong soap and water solution. Absorb any excess liquid and add to the recovery drums of waste already collected.

Refer to Section 13 for disposal of spilled material. Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Handling

Avoid contact with eyes, skin and clothing. Avoid formation of dusts and aerosols. Wear safety glasses, goggles or face shield. Mechanical ventilation should be used when handling this product in enclosed spaces. When using do not eat drink or smoke. Wash hands thoroughly after handling or contact. Wash contaminated clothing before reuse. Emptied packages retain vapor and product residue. FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.

Storage

Keep out of reach of children. Keep away from food, drink and animal feed. Keep only in the original container. Keep container tightly closed in a cool, well-ventilated place. Keep away from flammable materials and sources of heat or flame. Follow all local, regional, national, and international regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits

No specific occupational exposure limit has been established.

Engineering controls

Have eye wash facilities immediately available at locations where eye contact can occur. Provide adequate Ventilation. Provide mechanical exhaust ventilation in closed spaces.

Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Avoid contact with skin. Wear chemical resistant gloves. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Wash hands with soap and water.

Body Protection

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Wear apron, boots, and full chemical protective suit.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

These data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Color/color range	Beige to tan
Odor	Slight chlorine odor
Physical state	Crystalline solid
Molecular weight	221.04
Molecular formula	$C_8H_6Cl_2O_3$
Melting point	113-114°C
Boiling point	No data available
Flash point	No data available
Explosive properties	No data available
Auto ignition temperature	No data available
Self-accelerating decomposition temperature (SADT)	No data available
Oxidizing properties	No data available
Specific gravity	1.526 @ 25°C

Vapor pressure	4.5 mPa @ 25°C
pH	1.86 in a 1% aqueous suspension @ 25°C
Solubility in water	13.8 g/L @ pH 7 9.5 g/L @ pH 9
Solubility in organic solvents	Readily soluble in organic solvents such as acetone, ethanol, dichloromethane, toluene and xylene.

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions of handling and storage.

Reactivity

No data available.

Possibility of hazardous reactions

No data available.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition

Hazardous products of combustion: Carbon dioxide, carbon monoxide, and hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure: Skin contact, eye contact, inhalation.

Potential health effects

Eye contact: Serious eye irritant.

Skin contact: Not expected to produce significant adverse effects when used as recommended.

Inhalation, short term: Not expected to produce significant adverse effects when used as recommended.

Single ingestion: Harmful if swallowed.

Acute oral toxicity

Rat, LD50: > 2,000 mg/kg body weight. FIFRA category III.

Acute dermal toxicity

Rat, LD50 (limit test): > 2,000 mg/kg body weight. FIFRA category III.

Acute inhalation toxicity

Rat, LC50, 4 **hours, aerosol:** > 5.3 mg/L. FIFRA category III.

Skin irritation

Rabbit: Slight irritation. FIFRA category IV.

Eye irritation

Rabbit: Severe irritation. FIFRA category II.

Skin sensitization

Guinea pig, Buehler test: No skin sensitization.

Genotoxicity/mutagenicity

Not genotoxic/mutagenic.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, potential, or confirmed human carcinogen by IARC, ACGIH, NTP, OSHA, or EPA.

Reproductive/Developmental Toxicity/Teratogenicity

No adverse effects reported from developmental and reproductive animal studies.

12. ECOLOGICAL INFORMATION

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, ocean or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product in sewer systems without previously notifying the sewage treatment plant authority.

Aquatic toxicity, fish

Rainbow trout *(Oncorhynchus mykiss)*: Acute toxicity, 96 hours, static, LC50 135 mg/L. Practically non-toxic.

Bluegill sunfish *(Lepomis macrochirus)*: Acute toxicity, 96 hours, static, LC50 135 mg/L. Practically non-toxic.

Aquatic toxicity, invertebrates

Water flea *(Daphnia magna)*: Acute toxicity, 48 hours, static, EC50 110 mg/L. Practically non-toxic.

Avian toxicity

Bobwhite quail *(Colinus virginianus)*: Dietary toxicity, 5 days, LC50 > 10,000 mg/kg diet. Practically non-toxic.

Mallard duck *(Anas platyrhynchos)*: Dietary toxicity, 5 days, LC50 > 2,000 mg/kg diet. Practically non-toxic.

Arthropod toxicity

Honey bee *(Apis mellifera)*: Oral and contact, 48 hours, LD50 > 100 µg/bee. Practically non-toxic.

Soil organism toxicity, invertebrates

Earthworm *(Eisenia foetida)*: Acute toxicity, 14 days, LC50 > 480 mg/kg soil. Practically non-toxic.

Aquatic toxicity, algae/aquatic plants

Green algae: Acute toxicity, 72 hours, static, LC50 41 to 480 mg/L (depends on species). Slightly toxic.

Mobility

Very high mobility. Koc 3.5 – 21.2 ml/g. Potential for groundwater contamination

Persistence and degradability

Low persistence. Single first-order DT50 3.2 – 4.9 days @ 20°C.

13. DISPOSAL CONSIDERATIONS

Product

Pesticide wastes are acutely hazardous. Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities and equipment are available or burn in an appropriate licensed commercial incinerator. Follow all local, regional, national, and international regulations.

Container

See the individual container label for disposal information. Emptied containers retain vapor and product residue. Do not reuse or refill containers. Completely empty containers into formulation equipment. Then offer for recycling if available or dispose of empty containers in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Follow all local, regional, national, and international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

Land transport

USDOT Hazard class:	9
Packing group:	III
ID number:	UN 3077
Hazard label:	9, EHSM

Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DICAMBA)

DOT Shipping Description: 1000 pounds AND LESS: NOT REGULATED BY DOT
DOT Shipping Description: GREATER THAN 1000 pounds: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III (DICAMBA)

Sea transport

IMDG Hazard class:	9
Packing group:	III
ID number:	UN 3077
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DICAMBA)

Air transport

IATA/ICAO Hazard class:	9
Packing group:	III
ID number:	UN 3077
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DICAMBA)

15. REGULATORY INFORMATION

SARA Title III Rules

Section 311/312 Hazards: Acute.

Section 302 Extremely Hazardous Substances: No chemicals in this material are subject to the reporting requirements.

Section 313 Toxic Chemicals: The following component is subject to reporting levels. Dicamba acid (3,6-dichloro-2-methoxybenzoic acid) CAS No. 1918-00-9.

CERCLA Reportable quantity

1,000 lbs.

California Prop. 65 Component

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Federal Fungicide, Insecticide, Rodenticide Act (FIFRA)

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

WARNING
CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY

Acute oral toxicity: FIFRA category III.
Acute dermal toxicity: FIFRA category III.
Acute inhalation toxicity: FIFRA category III.
Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category II.
Skin sensitization: No skin sensitization.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data. Follow all local, regional, national, and international regulations. Please consult supplier if further information is needed. For more information refer to the product label. Please consult MEY Corporation if further information is needed.

	Health	Flammability	Instability	Additional Markings
NFPA	2	0	0	
0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard				

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. In the USA, use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA approved label.

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