

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:

Tenkoz, Inc.
1725 Windward Concourse
Alpharetta, GA 30005

EMERGENCY TELEPHONE NUMBERS:

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

PRODUCT NAME : **Tenkoz Amine 4 2, 4-D Herbicide**
 CHEMICAL NAME : Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid
 CHEMICAL FAMILY : Phenoxy herbicide
 PRODUCT CODE : EPA Reg. No. 42750-19-55467

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

| COMPONENT | PERCENTAGE | CAS NUMBER | OSHA PEL | ACIGH TLV |
|------------------------------------------------------|------------|------------|----------|-----------|
| Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid | 46.8 % | 2008-39-1 | 10 mg/m3 | 10 mg/m3 |
| Inert Ingredients | 53.2% | N/A | N/A | N/A |

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

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

HEALTH HAZARDS: Corrosive. Causes irreversible eye damage.

PHYSICAL HAZARDS: May release toxic fumes if burned.

ENVIRONMENTAL HAZARDS: 2,4-D DMA is toxic to some 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 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 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 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: Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: Not combustible

AUTOIGNITION TEMPERATURE: Not established

FLAMMABLE LIMITS: Not established

EXTINGUISHING MEDIA: Water spray, Foam

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,

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.

SECTION 7 - HANDLING AND STORAGE

DANGER KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Do not reuse this container. Wear proper safety equipment.

STORAGE: Do not store this product near fertilizers, seeds, insecticides, or fungicides. Reclose all partially used containers by thoroughly tightening screw cap. Absorb any spill with a suitable clay absorbent and dispose of as indicated under "Pesticide Disposal." Protect from freezing. If stored below freezing, the product must be warmed to at least 70°F and agitated before using. This does not affect the efficiency of the product.

Refer to product label for additional and complete storage guidance.

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 – Coveralls over short-sleeved shirt and short pants, Chemical resistant footwear plus socks.

GLOVES – Chemical resistant gloves made of any waterproof material.

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)

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and 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. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Clear amber to brown liquid

ODOR: Pungent amine like

SPECIFIC GRAVITY: 1.12 – 1.19 g/ml (9.40 – 9.95 lb/gal.)*

pH: 7.5 – 9.5

VAPOR PRESSURE: 16.5 mm Hg at 20C

VAPOR DENSITY: < 1 (water vapor)

WATER SOLUBILITY: Soluble

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

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid excessive heat.

INCOMPATIBILITY WITH OTHER MATERIALS: Oxidizing agents and acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may release toxic gases such as HCl

HAZARDOUS POLYMERIZATION: Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

| | | |
|-----------------------------------|---|----------------|
| Oral LD ₅₀ (rat) | - | > 1,000 mg/Kg |
| Dermal LD ₅₀ (rat) | - | > 1,250 mg/Kg |
| Inhalation LC ₅₀ (rat) | - | > 3.0 mg/L |
| Eye Irritation (rabbit) | - | Severe |
| Skin Irritation (rabbit) | - | Slight |
| Sensitization (guinea pig) | - | Non-sensitizer |

CARCINOGEN STATUS:

| | | |
|------|---|----|
| OSHA | - | No |
| NTP | - | No |
| IARC | - | 2B |

MUTAGENIC DATA: Not known to be mutagenic

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This pesticide may be toxic to fish and aquatic invertebrates. For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on label.

Refer to product label for additional guidance on environmental hazards.

FISH TOXICITY: (Acid Technical)

96 hour LC₅₀, Bluegill – 524 mg/L

96 hour LC₅₀, Rainbow trout – 250 mg/L

AVIAN TOXICITY: (Acid Technical)

Oral LD₅₀, Quail – 500 mg/Kg

Oral Dietary LC₅₀, Mallard Duck - > 5,500 ppm

BEE TOXICITY: Unknown.

SECTION 13 - DISPOSAL CONSIDERATIONS

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

WASTE: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your state Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER: Non-refillable containers: Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling if available 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. Refillable containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the re-filler.

Refer to the product label for additional and complete Container Handling instructions

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION:

Containers < 30 gallons - Not regulated
Containers ≥ 30 gallons - UN3082, Environmentally Hazardous Substances, Liquid, N.O.S., (2,4-D dimethyl amine), 9, PG III, RQ (2,4-D salt)

DOT HAZARD CLASS: Class 9
IDENTIFICATION NUMBER: UN3082
DOT PACKING GROUP: PG III
DOT PRIMARY/SECONDARY LABEL: None
DOT PRIMARY/SECONDARY PLACARD: Class 9 (≥119 gallons)
DOT EMERGENCY RESPONSE GUIDE #: 171

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: 100 lbs 2,4-D acid (approximately 25 gallons of 2,4-D Amine 4)
SARA TITLE III STATUS:
311/312 Hazard Categories - Immediate & Delayed Health
313 Toxic Chemicals – Not listed
CALIFORNIA PROP 65: Not listed

SECTION 16 - OTHER INFORMATION

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

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Tenkoz's knowledge. Tenkoz makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

REVISED DATE: August, 2012 (A); April, 2013 (Tenkoz)
REVISED FOR: Revise Section 7, Section 12 and Section 13 to match EPA label; Company address.