SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS: EMERGENCY TELEPHONE NUMBERS:

Tenkoz, Inc. (800) 424-9300 (CHEMTREC, transportation and spills)

Alpharetta, GA 30005

PRODUCT NAME : Tenkoz MCPA AMINE 4

CHEMICAL NAME : Dimethyl amine salt of 2-Methyl-4-chlorophenoxyacetic acid (MCPA)

PRODUCT USE : Herbicide

PRODUCT CODE : EPA Reg. No 42750-14-55467

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

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

Amber liquid

HEALTH HAZARDS: DANGER. Corrosive to eyes with corneal injury possible. Harmful if swallowed or absorbed through skin.

PHYSICAL HAZARDS:

May release toxic fumes if burned.

ENVIRONMENTAL HAZARDS:

Toxic to some aquatic organisms.



SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	
Dimethyl amine salt of MCPA	48.89	2039-46-5	
Inert Ingredients	51.11	N/A	

SECTION 4 - FIRST AID MEASURES

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

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 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.

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.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

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

SECTION 5 - FIRE FIGHTING MEASURES

National Fire Protection Rating (NFPA)

HEALTH				2	
FLAMMABIL	ITY			0	
REACTIVITY	/			1	
4=Severe	3=Serious	2=Moderate		1=Slight	0=Minimal

FLASHPOINT: >100°C

EXTINGUISHING MEDIA: Water spray, Foam

FIRE AND EXPLOSION HAZARD: Thermal decomposition can produce toxic gasses.

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 runoff.

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

Minimize use of water to prevent environmental contamination

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.

Minimize use of water to prevent environmental contamination

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Do not reuse this container. Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

STORAGE: Store in a dry location away from children, animals, foods, feeds, seeds, or other agricultural chemicals. Do not store below 40°F or expose to subfreezing temperatures. Keep container closed when not in use. Store away from heat (> 100 F) and keep from freezing (< 30 F).

Do not use, pour, spill or store near heat or open flame.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 hour TWA, ppm):

COMPONENT	OSHA PEL	ACIGH TLV
Dimethyl amine salt of MCPA	Not listed	Not listed

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to minimize exposure to airborne contaminants. 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: Mixers, loaders, applicators, flaggers and other handlers must wear: EYE PROTECTION - Protective eyewear, goggles or face shield

CLOTHING – Long-sleeved shirt and long pants, Shoes plus socks and Chemical-resistant headgear for overhead exposure.

GLOVES – Chemical resistant gloves made of any waterproof material.

Additional PPE requirements for mixers and loaders supporting aerial application to rangelands, pasture lands, or noncropland. These mixers/loaders also must wear:

A chemical resistant apron, and a NIOSH-approved respirator with a dist/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N², R, P, or HE filter.

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 outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid

Odor: Characteristic of sulfur-containing compounds

pH: 8.1 – 9.1

Melting Point: Not applicable

Boiling Point: No data

Flash Point: >100°C

Evaporation Rate: No data

Flammability: Not flammable

Flammability Limits: Not applicable

Vapor Pressure: 2.3 x 10⁻² mPa (20°C) (MCPA)

Vapor Density: Not applicable

Density: $1.09 - 1.13 \text{ g/ml } (9.1 - 9.4 \text{ lb/gl})^*$

Solubility: Emulsifies

Partition Coefficient: log Pow = 2.75 (pH 1), 0.46 (pH 5) (25°C) (MCPA)

Auto-Ignition Temperature: No data **Decomposition Temperature:** No data

Viscosity: 9.987 cSt (20°C); 4.758 cSt (40°C)

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

SECTION 10 - STABILITY AND REACTIVITY

PRODUCT REACTIVITY: None known

CHEMICAL STABILITY: Stable under normal conditions.

HAZARDOUS REACTION/POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Avoid excessive heat.

INCOMPATIBLE MATERIALS: Oxidizing agents and acids.

HAZARDOUS DECOMPOSITION PRODUCTS:. Thermal decomposition may release toxic gases such as hydrogen chloride, oxides of nitrogen and carbon.

SECTION 11 - TOXICOLOGICAL INFORMATION

Data from a similar but not identical formulation

ACUTE TOXICITY:

 $\begin{array}{ll} \text{Oral LD}_{50} \; (\text{rat}) & > 1,250 \; \text{mg/Kg} \\ \text{Dermal LD}_{50} \; (\text{rat}) & > 2,000 \; \text{mg/Kg} \\ \text{Inhalation LC}_{50} \; (\text{rat}) & > 2.25 \; \text{mg/L} \end{array}$

Eye Irritation (rabbit) Severely irritating, corrosive

Skin Irritation (rabbit) Slightly irritating Sensitization (guinea pig) Non-sensitizer

CARCINOGEN STATUS:

OSHA - Not listed NTP - Not listed

IARC - 2B (chlorophenoxy herbicides)

TERATOGENICITY: Limited evidence of developmental toxicity.

MUTAGENICITY: Weight of evidence indicates MCPA is not mutagenic.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This pesticide may be toxic to fish, aquatic invertebrates and aquatic plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

FATE: MCPA DMA rapidly disassociates to the parent acid in the environment. MCPA has a half-life of 10-14 days depending on soil type.

FISH TOXICITY: (Acid technical)

96 hour LC₅₀, Bluegill – > 310 mg/L96 hour LC₅₀, Rainbow trout – 230 mg/L **AVIAN TOXICITY: (DMAS)**

Dietary LC₅₀, Quail – > 5,000 ppm Dietary LC₅₀, Mallard Duck - > 5,500 ppm

BEE TOXICITY: (DMAS) >20.0 ug/bee

SECTION 13 - DISPOSAL CONSIDERATIONS

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

WASTES: 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. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. 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 refiller.

Refer to the container label to determine if it is refillable and for complete cleaning and disposal instructions.

SECTION 14 - TRANSPORT INFORMATION

SHIPPING DESCRIPTION: Not regulated by DOT

(Ground transport)

TRANSPORT HAZARD CLASS: N/A
UN NUMBER: N/A
DOT PACKING GROUP: PG III

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not listed

SARA TITLE III STATUS:

311/312 Hazard Categories - Immediate & Delayed Health

313 Toxic Chemicals - None known

CALIFORNIA PROP 65: Not listed.

TSCA: This product is exempted from TSCA because it is solely for

FIFRA regulated use.

SECTION 16 - OTHER INFORMATION

HMIS HAZARD RATINGS	HEALTH				2	
	FLAMMABIL	.ITY			0	
	PHYSICAL H	HAZARD			1	
	4=Severe	3=Serious	2=Mc	oderate	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' 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.

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. 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.

REVISED DATE: October, 2014

REVISED FOR: Revised for GHS compliance