

## Dichloroacetic Acid

Revision Date: 1/15/15

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name:</b>	Dichloroacetic Acid Solution
<b>Product code:</b>	3510-02, -15, -04, -01
<b>Supplier:</b>	Astral Diagnostics Inc. 1224 Forest Parkway, Suite 200 West Deptford, NJ 08066 800-441-0366 Technical Service Monday-Friday: 8:00 -5:00 PM
<b>Synonym:</b>	None.
<b>Material uses:</b>	Laboratory Reagent.
<b>Validation date:</b>	1/15/2015
<b>In case of emergency:</b>	800-424-9300 CHEMTREC (USA) 24 Hours/Day: 7 Days/Week

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Skin Corrosion (Category 1A), H314  
Serious Eye Damage (Category 1), H318  
Acute Aquatic Toxicity (Category 1), H400  
Acute Toxicity, Dermal (Category 3), H311

**GHS Label Elements:** Pictogram



**Signal Word:** Danger!

#### Potential Acute Health Effects:

Hazardous in case of contact with eye, skin, ingestion and inhalation. Liquid or spray mist may produce tissue damage especially mucous membranes of eyes, mouth and respiratory tract. Will burn eyes and skin on contact. Respiratory track characterized by coughing, choking and shortness of breath. Inflammation of eyes results in redness, watering and itching. Skin contact results in scaling, redness or blistering.

#### Potential Chronic Health Effects:

Carcinogenic Effects, NA; Mutagenic Effects, mutagenic for mammalian somatic cells, bacterial and/or yeast; Teratogenic Effects, NA; Developmental Toxicity, NA. May be toxic to kidneys, mucous membranes, skin and teeth.

#### Precautionary statement(s):

If in eyes or skin: Rinse with water for several minutes. Remove contact lenses, if present and rinse again.  
Wear protective gloves/protective clothing/eye protection/face protection.

#### Target Organs

Respiratory tract, eyes, skin, blood, liver and kidneys .

**NFPA Rating**

Health hazard: 3

Fire: 1

Reactivity Hazard: 0

**HMIS Classification**

Health hazard: 3

Flammability: 1

Physical hazards: 0

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Name	CAS number	% by weight
Trichloroacetic Acid	76-03-9	100%

**4. FIRST AID MEASURES**

<b>Eye contact:</b>	Check for and remove any contact lenses. Immediately flush eyes with water for 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
<b>Skin contact:</b>	Flush skin with water for 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
<b>Inhalation:</b>	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
<b>Ingestion:</b>	Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**5. FIRE-FIGHTING MEASURES****Flammability of the product:** Non-flammable**Extinguishing media:** Use suitable media for surrounding materials.**Special exposure hazards:** Not available**Decomposition products:** Not available**Special protective****equipment for fire-fighters:** Use self-contained breathing apparatus if necessary.**Explosion hazards:** Not-applicable**6. ACCIDENTAL RELEASE MEASURES****Personal precautions:** Keep unnecessary and unprotected personnel from entering area. Avoid breathing vapors. Provide adequate ventilation. Do not touch or walk through spilled material.**Environmental precautions:** Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Contain spill area.**Spill:** Prevent runoff. Contain and collect spillage with absorbent material e.g. sand, earth, vermiculite etc and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Dilute with water and mop-up or absorb with an inert dry material and place in an appropriate waste disposal container. Avoid contact with strong oxidizers.**7. HANDLING AND STORAGE****Handling:** Avoid breathing vapors or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store in ventilated areas. Keep from alkalis.

**Storage:** Store in a well-ventilated, cool area. Keep container tightly closed and sealed until ready for use. Corrosive material should be stored separately.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure limits:

**ACGIH TLV:** TWA, 1ppm

**OSHA PEL:** TWA: 1ppm

**NIOSH REL:** TWA: 1ppm

**Engineering measures:** Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne concentrations below any recommended threshold limits.

**Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating and using the lavatory. Wash contaminated clothing before reusing.

### Personal protection

**Respiratory:** If used in poorly ventilated areas, use a properly fitted, air-purifying or air-fed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels.

**Hands:** Chemical-resistant neoprene gloves

**Eyes:** Safety eyewear; splash goggles, face shield

**Skin:** Lab coats for personal protective equipment and should be approved by a specialist before handling this product. Depending on volume/conditions a full acid suit, flame retardant, antistatic may be necessary.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid.	<b>Color:</b>	Clear
<b>Flash Point:</b>	NA	<b>Odor:</b>	NA
<b>pH:</b>	NA	<b>Boiling/condensation point:</b>	NA
<b>Melting/freezing point:</b>	NA	<b>Relative density:</b>	NA
<b>Vapor pressure:</b>	NA	<b>Vapor density:</b>	NA
<b>Odor threshold:</b>	NA	<b>Evaporation rate:</b>	NA
<b>VOC:</b>	NA		
<b>Solubility:</b>	Soluble in the following materials: water		

## 10. STABILITY AND REACTIVITY

**Chemical stability:** The product is stable under normal conditions.

**Possibility of hazardous reactions:** Not available

**Hazardous polymerization:** Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions to avoid:** Strong alkaline solutions

**Materials to avoid:** Strong alkaline solutions/oxidizing materials

**Hazardous decomposition products:** Not available

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

Oral: LD50-Rat 3,320 mg/kg

Inhalation: Not available

Dermal: Not available

**Other information on acute toxicity**

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

Eyes: Rabbit, severe eye irritation – 5s

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

No data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

**Inhalation** Liquid or spray mist may produce tissue damage especially mucous membranes of eyes, mouth and respiratory tract. Toxic to lungs.

**Ingestion** May cause burns/tissue destruction.

**Skin** Will burn skin on contact.

**Eyes** Will burn eyes on contact.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

**Toxicity**

LC50, fathead minnow >2000 mg/L 96 hr

**Persistence and degradability**

Not readily biodegradable

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

## 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

**DOT (US)** UN 1764, Dichloroacetic acid solution, Corrosive Liquid, Class 8, PG II Ship as LTDQTY

**IMDG** UN 2564, Dichloroacetic acid solution, Corrosive Liquid, Class 8, PG II EMS-No: F-A, S-B

## 15. REGULATORY INFORMATION

**SARA 302:** No components are subject to reporting of Title III

**SARA 313:** No components are subject to reporting of Title III

**SARA 311/312:** Acute Health Hazard, Chronic Health Hazard

**WHMIS (Canada):** Class D-2A: Material causing other toxic effects (Very Toxic) Class E: Corrosive liquid

**DEA List I Chemicals**

**Precursor Chemicals):** Not listed

**DEA List II Chemicals**

**Essential Chemicals):**

RTK: Dichloroacetic Acid, CAS 76-03-9, MA, MN, NJ, PA

**California Prop 65 Components:** Warning! This product contains a chemical known to the state of California to cause cancer.

**WHMIS (Canada)**

**Class D-2A: Material causing other toxic effects (very toxic) Class E: Corrosive liquid**

## 16. OTHER INFORMATION

**National Fire Protection Association (U.S.A.)**



### **Notice to reader**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics, Inc shall not be liable for any damage resulting from handling of contact with this product.