Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Reviewed on 09/25/18

Delasco

Issue date 06/11/15

* 1 Identification

· **Product identifier**

· **Trade name: Dichloroacetic Acid**
· **CAS Number:** 79-43-6 · **EC number:** 201-207-0 · **Index number:** 607-066-00-5
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Product description** Dichloroacetic Acid

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Dermatologic Lab & Supply, Inc.
608 13th Ave.
Council Bluffs, IA USA 51501-6401
Voice: (800) 831-6273 or (712) 323-3269
Fax: (800) 320-9612 or (712) 323-1156
www.delasco.com
· **Emergency telephone number:** Chemtrec 800-424-9300

* 2 Hazard(s) identification

· **Classification of the substance or mixture**

GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.
Repr. 1A H360 May damage fertility or the unborn child.

GHS05 Corrosion

Skin Corr. 1A H314Causes severe skin burns and eye damage.

GHS09 Environment

Aquatic Acute 1H400Very toxic to aquatic life.

· **Label elements**
· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

· **Hazard pictograms**

GHS05 GHS08 GHS09

· **Signal word** Danger
· **Hazard-determining components of labeling:**
Dichloroacetic acid
· **Hazard statements**
Causes severe skin burns and eye damage.
Suspected of causing cancer.
May damage fertility or the unborn child.
Very toxic to aquatic life.
· **Precautionary statements**
Do not breathe dusts or mists.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a poison center/doctor.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If swallowed: Rinse mouth. Do NOT induce vomiting.
Collect spillage.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations. ·
Classification system: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
· **NFPA ratings (scale 0 - 4)**

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

Health = 3
Fire = 1
Reactivity = 0

· ***HMIS-ratings (scale 0 - 4)***

Health = 3
Fire = 1
Reactivity = 0

· ***Hazard(s) not otherwise classified (HNOC):*** None known

* 3 Composition/information on ingredients

CAS: 79-43-6 RTECS: AG 6125000	Dichloroacetic acid Carc. 2, H351; Repr. 1A, H360; Skin Corr. 1A, H314; Aquatic Acute 1, H400	100%

· ***Chemical characterization: Substance***
· ***CAS No. Description***
79-43-6 Dichloroacetic acid
· ***Identification number(s)***
· ***EC number:*** 201-207-0
· ***Index number:*** 607-066-00-5

(Contd. on page 3)

* 4 First-aid measures

· ***Description of first aid measures*** · ***General information:*** Immediately remove any clothing soiled by the product.
· ***After inhalation:***
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
In case of unconsciousness, place patient securely on side position for transportation.
· ***After skin contact:***
Immediately wash with water and soap and rinse thoroughly. If skin irritation occurs, consult a doctor.
· ***After eye contact:*** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.
· ***After swallowing:***
Do not induce vomiting without medical advice. Drink copious amounts of water and provide fresh air. Immediately call a doctor.
· ***Information for doctor:***
· ***Most important symptoms and effects, both acute and delayed:*** No further relevant information available.
· ***Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

* 5 Fire-fighting measures

· ***Extinguishing media***
· ***Suitable extinguishing agents:*** Use fire fighting measures that suit the environment.
· ***Special hazards arising from the substance or mixture*** No further relevant information available.
· ***Advice for firefighters*** Use water spray to cool unopened containers.
· ***Protective equipment:***

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

* 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Avoid contact with skin, eyes and clothing.
Keep people at a distance and stay upwind.
Keep away from ignition sources
Do not inhale gases / fumes /aerosols Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation. Dispose of the collected material according to regulations.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* 7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Keep away from heat and direct sunlight.
Avoid contact with skin, eyes and clothing
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:** Keep protective respiratory device available.
· **Conditions for safe storage, including any incompatibilities** Store away from strong bases, strong oxidizing agents and strong reducing agents.
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep receptacle tightly sealed.
· **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.
· **Control parameters**

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

· **Components with occupational exposure limits:**	
79-43-6 Dichloroacetic acid	
TLV	Long-term value: 2.64 mg/m³, 0.5 ppm Skin

· **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin. ·

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Select glove material based on penetration times, rates of diffusion and degradation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**

Tightly sealed goggles

· **Body protection:**

Protective work clothing

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

* 9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information** · **Appearance:**

Form:	Liquid
Color:	Clear, colorless
· **Odor:**	Slightly pungent
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	-4 °C (25 °F)
Boiling point/Boiling range:	192-193 °C (378-379 °F)
· **Flash point:**	110 °C (230 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	
Decomposition temperature:	Not determined.
· **Auto igniting:**	Not determined.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure @ 20 °C (68 °F):**	0.2 hPa
· **Density @ 20 °C (68 °F):**	1.56 g/cm³ (13.018 lbs/gal)
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	100 %
· **Other information**	No further relevant information available.

* 10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability** Stable under normal conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** Strong bases, strong acids and strong oxidizing agents.
· **Hazardous decomposition products:** Carbon Oxides and Hydrochloric Acid gas.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

* 11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
79-43-6 Dichloroacetic acid		
Oral	LD50	2820 mg/kg (rat)
Dermal	LD50	510 mg/kg (rabbit)

· **Primary irritant effect:**
· **on the skin:** Strong caustic effect on skin and mucous membranes.
· **on the eye:** Corrosive effect.
· **Additional toxicological information:**
Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**
· **IARC (International Agency for Research on Cancer)**
Group 1 - Carcinogenic to humans
Group 2A - Probably carcinogenic to humans
Group 2B - Possibly carcinogenic to humans
Group 3 - Not classifiable as to its carcinogenicity to humans
Group 4 - Probably not carcinogenic to humans

79-43-6	Dichloroacetic acid	2B

· **NTP (National Toxicology Program)** Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
* Substance is not listed.

12 Ecological information

· **Toxicity** The hazards for the aquatic environment are unknown.
· **Aquatic toxicity:**
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Ecotoxical effects:** ·
Remark: Very toxic for fish
· **Additional ecological information:**
· **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Poisonous for fish and plankton in water bodies.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

Very toxic for aquatic organisms ·

Results of PBT and vPvB assessment

· ***PBT:*** Not applicable.

· ***vPvB:*** Not applicable.

· ***Other adverse effects*** No further relevant information available.

* 13 Disposal considerations

· ***Waste treatment methods***

· ***Recommendation:***

Observe all federal, state and local environmental regulations when disposing of this material.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· ***Uncleaned packagings:***

· ***Recommendation:*** Disposal must be made according to official regulations.

· ***Recommended cleansing agent:*** Water, if necessary with cleansing agents.

* 14 Transport information

· ***UN-Number***

· ***DOT, ADR, IMDG, IATA***	UN1764
· ***UN proper shipping name***	
· ***DOT***	Dichloroacetic acid
· ***ADR***	UN1764 Dichloroacetic acid, ENVIRONMENTALLY HAZARDOUS
· ***IMDG***	DICHLOROACETIC ACID, MARINE POLLUTANT
· ***IATA***	DICHLOROACETIC ACID

· ***Transport hazard class(es)***

· ***DOT***

· ***Class***	8 Corrosive substances

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

· **Label**	8
· **ADR**	
	
· **Class**	8 (C3) Corrosive substances
· **Label**	8
· **IMDG**	
	
· **Class**	8 Corrosive substances
· **Label**	8
· **IATA**	
	
· **Class**	8 Corrosive substances
· **Label**	8
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	II
· **Environmental hazards:**	
· **Special marking (ADR):**	Symbol (fish and tree)
· **Special precautions for user**	Warning: Corrosive substances
· **Danger code (Kemler):**	80
· **EMS Number:**	F-A,S-B
· **Segregation groups**	Acids
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **DOT**	
· **Quantity limitations**	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
· **Remarks:**	Special marking with the symbol (fish and tree).
· **ADR**	
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **IMDG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

(Contd. on page 9)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

Trade name: Dichloroacetic Acid

· **UN "Model Regulation":** UN1764, Dichloroacetic acid, ENVIRONMENTALLY HAZARDOUS, 8, II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Sara**

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **California Proposition 65**

· **Chemicals known to cause cancer:**

Substance is listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is listed.

· **Chemicals known to cause developmental toxicity:**

Substance is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

79-43-6	Dichloroacetic acid	L

· **TLV (Threshold Limit Value established by ACGIH)**

79-43-6	Dichloroacetic acid	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

*

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 Reviewed on 09/25/18

· ***GHS label elements*** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· ***Hazard pictograms***

GHS05 GHS08 GHS09

· ***Signal word*** Danger

· ***Hazard-determining components of labeling:***
Dichloroacetic acid

· ***Hazard statements***
Causes severe skin burns and eye damage.
Suspected of causing cancer.
May damage fertility or the unborn child.
Very toxic to aquatic life.

Trade name: Dichloroacetic Acid

· ***Precautionary statements***
Do not breathe dusts or mists.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If swallowed: Rinse mouth. Do NOT induce vomiting.
Collect spillage.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· ***National regulations:***		
Non-Regulated Material		
· ***State Right to Know***		
CAS: 79-43-6 RTECS: AG 6125000	Dichloroacetic acid Carc. 2, H351; Repr. 1A, H360; Skin Corr. 1A, H314; Aquatic Acute 1, H400	100%
None of the ingredients are listed		

· ***Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/11/15 *Reviewed on 09/25/18*

establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· ***Date of preparation / last revision***

06/11/15 - 09/25/18

· ***Abbreviations and acronyms:***

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Carc. 2: Carcinogenicity, Hazard Category 2
Repr. 1A: Reproductive toxicity, Hazard Category 1A
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

· **** Data compared to the previous version altered.***

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106