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Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Chlorinated Acid Herbicides
Product Number 829
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory use only
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier ERA a Waters Company
Supplier Address 16341 Table Mountain Parkway, Golden, CO 80403 USA
Non-Emergency Telephone Number +1-303-431-8454
Supplier Email sdsinfo@eraqc.com

Emergency telephone number

Company Emergency Phone Number In case of EMERGENCY call CHEMTREC Day or Night
 Within USA and Canada: 800-424-9300
 International Call Collect: +1-703-527-3887

2. HAZARDS IDENTIFICATION


Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2
Flammable Liquids	Category 2

GHS Label elements, including precautionary statements

Emergency Overview

Signal word	Danger
Hazard Statements	Harmful if inhaled Causes serious eye irritation Highly flammable liquid and vapor
	

Appearance Clear, colorless**Physical state** Liquid**Odor** Aromatic**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ ventilating/ lighting/ equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Wear eye/face protection

Precautionary Statements - Response

Specific treatment (see .? on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention

Skin

Call a POISON CENTER or doctor/physician if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

Fire

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity

Other information

PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION

Interactions with Other Chemicals

Use of alcoholic beverages may enhance toxic effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Note: only the components contributing to the product's GHS hazard classification are listed in this section.

Chemical name	CAS No	Weight-%
Acetonitrile	75-05-8	100

4. FIRST AID MEASURES

First aid measures**General Advice**

Show this safety data sheet to the doctor in attendance.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact

If symptoms persist, call a physician. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen.

Ingestion

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

Unsuitable Extinguishing Media

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Vapors can form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.

Uniform Fire Code

Irritant: Liquid

Toxic: Liquid

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters

Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures**Personal precautions**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Other Information

Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Environmental precautions**Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up**Methods for containment**

A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Methods for cleaning up

Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid breathing vapors or mists. Use personal protection equipment. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions.

Conditions for safe storage, including any incompatibilities

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Incompatible Products

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetonitrile 75-05-8	TWA: 20 ppm S*	TWA: 40 ppm TWA: 70 mg/m ³ TWA: 5 mg/m ³ CN (vacated) TWA: 40 ppm (vacated) TWA: 70 mg/m ³ (vacated) TWA: 5 mg/m ³ (vacated) STEL: 60 ppm (vacated) STEL: 105 mg/m ³ S*	IDLH: 500 ppm IDLH: 25 mg/m ³ CN TWA: 20 ppm TWA: 34 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection

If splashes are likely to occur: None required for consumer use. Tight sealing safety goggles.

Skin and body protection

Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves. Antistatic boots.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Liquid	Odor	Aromatic
Appearance	Clear, colorless	Odor Threshold	No information available
Color	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	UNKNOWN	None known	
Melting / freezing point	no data available	None known	
Boiling point / boiling range	no data available	None known	
Flash Point	no data available	None known	
Evaporation Rate	no data available	None known	
Flammability (solid, gas)	no data available	None known	
Flammability Limit in Air		None known	
Upper flammability limit	no data available		
Lower flammability limit	no data available		
Vapor pressure	no data available	None known	
Vapor density	no data available	None known	
Specific Gravity	1	None known	
Water Solubility	Soluble in water	None known	
Solubility in other solvents	no data available	None known	
Partition coefficient: n-octanol/water	no data available	None known	
Autoignition temperature	no data available	None known	
Decomposition temperature	no data available	None known	
Kinematic viscosity	no data available	None known	
Dynamic viscosity	no data available	None known	
Explosive properties	no data available		
Oxidizing properties	no data available		

Other Information

Softening Point	no data available
VOC Content (%)	no data available
Particle Size	no data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY**Reactivity**

no data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Excessive heat. Heat, flames and sparks.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information****Inhalation**

Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).

Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation. May be absorbed through the skin in harmful amounts. Harmful in contact with skin. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acetonitrile 75-05-8	= 160 mg/kg (Rat) = 2460 mg/kg (Rat)	= 390 mg/kg (Rabbit) > 2000 mg/kg (Rabbit)	= 26.8 mg/L (Rat) 4 h = 7551 ppm (Rat) 8 h

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes. Coughing and/ or wheezing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic toxicity	No known effect based on information supplied. May cause adverse liver effects.
Target Organ Effects	Eyes. Respiratory system. Central nervous system (CNS). Central Vascular System (CVS). Kidney. Liver.
Aspiration Hazard	No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

500.00 mg/kg

ATEmix (dermal)

1,100.00 mg/kg (ATE)

ATEmix (inhalation-gas)

4,500.00 ppm (4 hr)

ATEmix (inhalation-dust/mist)

1.50 mg/L

ATEmix (inhalation-vapor)

17.89 ATEmix

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Acetonitrile 75-05-8		96h LC50: 1600 - 1690 mg/L (Pimephales promelas) 96h LC50: = 1000 mg/L (Pimephales promelas) 96h LC50: = 1850 mg/L (Lepomis macrochirus) 96h LC50: = 1650 mg/L (Poecilia reticulata)		18h EC50: = 5838 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

Chemical name	Log Pow
Acetonitrile 75-05-8	-0.34

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods

Should not be released into the environment. Dispose of contents/containers in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated Packaging

Dispose of contents/containers in accordance with local regulations.

US EPA Waste Number

U003 U170 U240 P020

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste
Acetonitrile 75-05-8	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

UN-No. UN1648
 Proper Shipping Name ACETONITRILE
 Hazard Class 3
 Packing Group II
 Description UN1648, ACETONITRILE, 3, II
 Emergency Response Guide Number 127

TDG

UN-No. UN1648
 Proper Shipping Name ACETONITRILE
 Hazard Class DOT Base 3
 Classification
 Packing Group for DOT Base II
 Classification
 Description UN1648, ACETONITRILE, 3, II, MARINE POLLUTANT

MEX

UN-No.	UN1648
Proper Shipping Name	ACETONITRILE
Hazard Class	3
Packing Group	II
Description	UN1648, ACETONITRILE, 3, II

ICAO

UN-No.	UN1648
Proper Shipping Name	ACETONITRILE
Hazard Class	3
Packing Group	II
Description	UN1648, ACETONITRILE, 3, II

IATA

UN-No.	UN1648
Proper Shipping Name	ACETONITRILE
Hazard Class	3
Packing Group	II
Special Provisions	None
Description	UN1648, ACETONITRILE, 3, II

IMDG/IMO

UN-No.	UN1648
Proper Shipping Name	ACETONITRILE
Hazard Class	3
Packing Group	II
EmS-No.	F-E, S-D
Special Provisions	None
Marine Pollutant	Not applicable
Description	UN1648, ACETONITRILE, 3, II, MARINE POLLUTANT

RID

UN-No.	UN1648
Proper Shipping Name	ACETONITRILE
Hazard Class	3
Packing Group	II
Classification code	F1
Special Provisions	None
Description	UN1648, ACETONITRILE, 3, II

ADR

UN-No.	UN1648
Proper Shipping Name	ACETONITRILE
Hazard Class	3
Packing Group	II
Classification code	F1
Tunnel restriction code	(D/E)
Special Provisions	None
Description	UN1648, ACETONITRILE, 3, II

ADN

UN-No.	UN1648
Proper Shipping Name	ACETONITRILE
Hazard Class	3
Packing Group	II
Classification code	F1
Description	UN1648, ACETONITRILE, 3, II
Hazard Labels	3
Limited Quantity	1 L
Ventilation	VE01

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.
ENCS	Contact supplier for inventory compliance status
IECSC	-
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Acetonitrile - 75-05-8	75-05-8	100	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetonitrile 75-05-8		X	X	

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Acetonitrile 75-05-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

International Regulations

Mexico

National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Acetonitrile 75-05-8 (100)		Mexico: TWA 40 ppm Mexico: TWA 70 mg/m ³ Mexico: TWA 5 mg/m ³ Mexico: STEL 60 ppm

Mexico: STEL 105 mg/m³

Mexico - Occupational Exposure Limits - Carcinogens

Canada
WHMIS Hazard Class
 Not determined

16. OTHER INFORMATION

NFPA	Health Hazards 3	Flammability 0	Instability 0	Physical and Chemical Hazards - Personal Protection X
HMS	Health Hazards 2	Flammability 0	Physical Hazard 0	

Prepared By Product Stewardship
 23 British American Blvd.
 Latham, NY 12110
 1-800-572-6501

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text



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End of Safety Data Sheet