



Be Right™

SAFETY DATA SHEET

Issue Date 26-Jun-2019

Revision Date 02-Jan-2020

Version 1.1

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

Product identifier

Product Name CDTA SOLUTION, 30ML SCDB
Safety data sheet number M03594

Other means of identification

Product Code(s) 2589723
UN/ID no UN1835

Manufacturer Address

Hach Company P.O.Box 389 Loveland, CO 80539 USA +1(970) 669-3050

Emergency Telephone

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Label elements

Signal word - Danger



Hazard statements

H302 - Harmful if swallowed
H311 - Toxic in contact with skin
H315 - Causes skin irritation
H318 - Causes serious eye damage
H370 - Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements

P270 - Do not eat, drink or smoke when using this product
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 - Rinse mouth

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P501 - Dispose of contents/ container to an approved waste disposal plant
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P361 + P364 - Take off immediately all contaminated clothing and wash it before reuse
P405 - Store locked up
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/physician
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor

Other Hazards Known
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Not applicable

Mixture

Chemical Family Mixture.
Chemical nature Aqueous alkaline solution.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No.	Percent Range	HMRIC #
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate	10424-65-4	1 - 5%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention.

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

Skin contact Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

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. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	Caution: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products	This material will not burn.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

U.S. Notice Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.
Flammability class	Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Legend	See section 16 for terms and abbreviations
<u>Appropriate engineering controls</u>	
Engineering Controls	Showers Eyewash stations Ventilation systems.
<u>Individual protection measures, such as personal protective equipment</u>	
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.
Hand Protection	Wear suitable gloves. Impervious gloves.
Eye/face protection	Tight sealing safety goggles.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.
General Hygiene Considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.
Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.
Thermal hazards	None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Color	Colorless to light yellow
Appearance	clear	Odor threshold	Not applicable
Odor	Odorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Molecular weight	Not applicable	
pH	7.2	
Melting point/freezing point	No data available	

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Boiling point / boiling range	No data available
Evaporation rate	No data available
Vapor pressure	No data available
Vapor density (air = 1)	No data available
Specific gravity (water = 1 / air = 1)	1.2
Partition Coefficient (n-octanol/water)	No data available
Soil Organic Carbon-Water Partition Coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Dynamic viscosity	No data available
Kinematic viscosity	No data available

Solubility(ies)

Water solubility

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Completely soluble	> 10000 mg/L	25 °C / 77 °F

Solubility in other solvents

<u>Chemical Name</u>	<u>Solubility classification</u>	<u>Solubility</u>	<u>Solubility Temperature</u>
None reported	No information available	No data available	No information available

Other Information

Metal Corrosivity

Steel Corrosion Rate	No data available
Aluminum Corrosion Rate	No data available

Volatile Organic Compounds (VOC) Content

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate	10424-65-4	No data available	-

Explosive properties

Upper explosion limit	Not applicable
Lower explosion limit	Not applicable

Flammable properties

Flash point	No data available
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Flammability Limit in Air

Upper flammability limit	No data available
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Lower flammability limit	No data available
Oxidizing properties	No data available.
Bulk density	Not applicable

10. STABILITY AND REACTIVITY

Reactivity
Not applicable.

Chemical stability
Stable under normal conditions.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid
None known based on information supplied.

Incompatible materials
Strong acids. Strong bases. Strong oxidizing agents.

Hazardous Decomposition Products
Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye contact	Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause irreversible damage to eyes.
Skin contact	Causes skin irritation. Toxic in contact with skin.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.
Symptoms	Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

Acute toxicity
Harmful if swallowed
Toxic in contact with skin

Product Acute Toxicity Data
No data available.

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Ingredient Acute Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate (1 - 5%) CAS#: 10424-65-4	Rat LD ₅₀	34 mg/kg	None reported	None reported	Japan National Institute of Technology and Evaluation (NITE)

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate (1 - 5%) CAS#: 10424-65-4	Rat LD ₅₀	25 mg/kg	None reported	None reported	ECHA (The European Chemicals Agency)

Unknown Acute Toxicity

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

Acute Toxicity Estimations (ATE)

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

ATEmix (oral)	691.10
ATEmix (dermal)	508.10
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

Skin corrosion/irritation

Classification based on data available for ingredients. Irritating to skin.

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate (1 - 5%) CAS#: 10424-65-4	Standard Draize Test	Guinea pig	25 mg	24 hours	Corrosive to skin	Japan National Institute of Technology and Evaluation (NITE)

Serious eye damage/irritation

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

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Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

No data available.

Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

Product Sensitization Data

No data available.

Ingredient Sensitization Data

No data available.

STOT - single exposure

Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin.

Product Specific Target Organ Toxicity Single Exposure Data

No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate (1 - 5%) CAS#: 10424-65-4	TD _{Lo} Rat	23 mg/kg	None reported	Behavioral Clonic convulsions Salivation Ataxia	Japan National Institute of Technology and Evaluation (NITE)

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Product Specific Target Organ Toxicity Repeat Dose Data

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

Carcinogenicity

Based on available data, the classification criteria are not met.

Product Carcinogenicity Data

No data available.

Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate	10424-65-4	-	-	-	-

Legend

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ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of Labor)	Does not apply

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Product Germ Cell Mutagenicity *invitro* Data

No data available.

Ingredient Germ Cell Mutagenicity *invitro* Data

No data available.

Product Germ Cell Mutagenicity *invivo* Data

No data available.

Ingredient Germ Cell Mutagenicity *invivo* Data

No data available.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Product Reproductive Toxicity Data

No data available.

Ingredient Reproductive Toxicity Data

No data available.

Aspiration hazard

Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Based on available data, the classification criteria are not met.

Unknown aquatic toxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Product Ecological Data

Aquatic Acute Toxicity

No data available.

Aquatic Chronic Toxicity

No data available.

Ingredient Ecological Data

Aquatic Acute Toxicity

No data available.

Aquatic Chronic Toxicity

No data available.

Persistence and degradability

Product Biodegradability Data

No data available.

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Bioaccumulation

Product Bioaccumulation Data

No data available.

Partition Coefficient (n-octanol/water)

No data available

Mobility

Soil Organic Carbon-Water Partition Coefficient

No data available

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT

UN/ID no	UN1835
Proper shipping name	Tetramethylammonium hydroxide solution
Hazard Class	8
Packing Group	III
Description	UN1835, Tetramethylammonium hydroxide solution, 8, III
Emergency Response Guide Number	153

TDG

UN/ID no	UN1835
Proper shipping name	Tetramethylammonium hydroxide solution
Hazard Class	8
Packing Group	III
Description	UN1835, Tetramethylammonium hydroxide solution, 8, III

IATA

UN/ID no	UN1835
Proper shipping name	Tetramethylammonium hydroxide, solution
Hazard Class	8
Packing Group	III
ERG Code	8L
Special precautions for user	A3 A803

IMDG

UN/ID no	UN1835
Proper shipping name	Tetramethylammonium hydroxide solution
Hazard Class	8
Packing Group	III
EmS-No	F-A, S-B
Special precautions for user	223

Additional information

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There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods.
If the item is not in a reagent set or kit, the classification given above applies.
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

Philippines Laws and Regulations

Department Administrative Order (DAO): Rules and Procedures for the Safety DataSheet (SDS).
Labeling Requirements and Hazards Classification under DENR Administrative Order No. 29.
Series of 1992 of Republic Act 6969 for the Adoption and Implementation of the Globally Harmonized System (GHS).

PICCS - Philippines Inventory of Chemicals and Chemical Substances

PICCS Complies

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Does not comply
IECSC Complies
KECL Complies
TCSI Complies
AICS Complies
NZIoC Complies

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

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

Philippines

Chemical name	CAS No.	Philippines - Priority Chemical List	Philippines - Substances Subject to Chemical Control Orders (CCO)
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate	10424-65-4	-	-

Regulation under the Waste Management Act

Dispose of in accordance with federal, state and local regulations

Basel Convention Codes

Chemical name	CAS No.	ANNEX I	ANNEX III
Methanaminium, N,N,N-trimethyl-, hydroxide, pentahydrate	10424-65-4	-	-

International Regulations

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The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH	<i>Immediately Dangerous to Life or Health</i>
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
NDF	<i>no data</i>

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

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Revision Note

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet