

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : WC-2700

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Water Clarifier

1.3. Supplier

Chemical Consultants Inc.
1600 Ratcliff Drive
P.O. Box 423
Gillette, WY 82716 - United States
T 307-686-2141 - F 307-686-1106
www.chemicalconsultants.com

1.4. Emergency telephone number

Emergency number : INFOTRAC 1-800-424-5571

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral)	H302	Harmful if swallowed
Category 4		
Skin corrosion/irritation	H314	Causes severe skin burns and eye damage
Category 1		

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS US) :

- P260 - Do not breathe fume, vapors.
- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P280 - Wear eye protection, protective gloves.
- P301+P312 - If swallowed: Call a POISON CENTER if you feel unwell
- P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
- P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
- 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
- P321 - Specific treatment (see First aid measures on this label)
- P330 - Rinse mouth.
- P363 - Wash contaminated clothing before reuse.
- P405 - Store locked up.
- P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
zinc chloride	(CAS-No.) 7646-85-7	15-50	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314
Hydrochloric Acid 37%	(CAS-No.) 7647-01-0	.99-4.99	Acute Tox. 3 (Oral), H301 Skin Corr. 1A, H314 Eye Dam. 1, H318

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- Potential Adverse human health effects and symptoms : Harmful if inhaled. Harmful if swallowed. Harmful in contact with skin. Irritation: may cause irritation to the respiratory system. Irritation: severely irritant to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Dry chemical powder. Alcohol-resistant foam. Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Exercise caution when fighting any chemical fire. In case of fire: Stop leak if safe to do so. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Eliminate every possible source of ignition.

6.1.1. For non-emergency personnel

- Protective equipment : Protective clothing. Protective goggles.
- Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

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6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: May be corrosive to metals.
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
Incompatible products	: Oxidizing agent.
Incompatible materials	: Combustible materials. Metals.
Packaging materials	: plastics.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

zinc chloride (7646-85-7)		
ACGIH	Local name	Zinc chloride fume
ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
ACGIH	ACGIH STEL (mg/m ³)	2 mg/m ³
ACGIH	Remark (ACGIH)	LRT & URT irr
OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³
OSHA	Regulatory reference (US-OSHA)	OSHA
Hydrochloric Acid 37% (7647-01-0)		
ACGIH	Local name	Hydrogen chloride
ACGIH	ACGIH Ceiling (ppm)	2 ppm
ACGIH	Remark (ACGIH)	URT irr
OSHA	OSHA PEL (Ceiling) (mg/m ³)	7 mg/m ³
OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses. Face shield. On heating: self-contained breathing apparatus.

Materials for protective clothing:

nitrile rubber/PVC

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

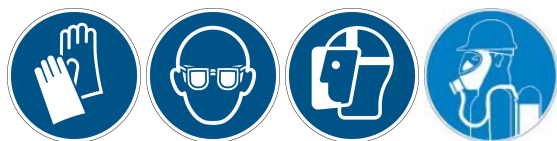
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In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: brown
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Odourless Irritating/pungent odour
Odor threshold	: No data available
pH	: < 0.1
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 209 °F
Flash point	: > 230 °F
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 1.2 psi
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.483 @ 60° F
Solubility	: Soluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 7.58 mm ² /s @ 60° F
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

May be corrosive to metals. Oxidizing agent.

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Oral: Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

ATE US (oral)	1687.117 mg/kg body weight
zinc chloride (7646-85-7)	
LD50 oral rat	1100 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral)
LD50 dermal rabbit	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Read-across, Dermal)
LC50 inhalation rat (mg/l)	2 mg/l air (Other, 10 minutes, Rat, Female, Experimental value, Inhalation (aerosol))
ATE US (oral)	1100 mg/kg body weight

Hydrochloric Acid 37% (7647-01-0)	
ATE US (oral)	100 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: < 0.1
Serious eye damage/irritation : Eye damage, category 1, implicit
pH: < 0.1
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : 7.58 mm²/s @ 60° F
Likely routes of exposure : Dermal. Inhalation. Skin and eye contact.
Potential Adverse human health effects and symptoms : Harmful if inhaled. Harmful if swallowed. Harmful in contact with skin. Irritation: may cause irritation to the respiratory system. Irritation: severely irritant to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

zinc chloride (7646-85-7)	
LC50 fish 1	169 µg/l (ASTM E729-88, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	330 µg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
Hydrochloric Acid 37% (7647-01-0)	
LC50 fish 1	282 mg/l (96 h, Gambusia affinis, Pure substance)
EC50 Daphnia 1	< 56 mg/l (72 h, Daphnia magna, Pure substance)

12.2. Persistence and degradability

zinc chloride (7646-85-7)	
Persistence and degradability	Biodegradability in soil: not applicable. Inhibition of nitrification. Biodegradability: not applicable.

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zinc chloride (7646-85-7)

Biochemical oxygen demand (BOD)	Not applicable (inorganic)
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Hydrochloric Acid 37% (7647-01-0)

Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

zinc chloride (7646-85-7)

BCF fish 1	58 - 457 (Cyprinus carpio, Test duration: 10 weeks)
Bioaccumulative potential	Bioaccumulation: not applicable.

Hydrochloric Acid 37% (7647-01-0)

Log Pow	0.25 (QSAR)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

zinc chloride (7646-85-7)

Ecology - soil	No (test)data on mobility of the substance available. Soil contaminant.
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Hydrochloric Acid 37% (7647-01-0)

Ecology - soil	No (test)data on mobility of the components available. May be harmful to plant growth, blooming and fruit formation.
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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1760 Corrosive liquids, n.o.s. (zinc chloride, hydrogen chloride. Marine pollutant zinc chloride), 8, II

UN-No.(DOT) : UN1760

Proper Shipping Name (DOT) : Corrosive liquids, n.o.s.
zinc chloride, hydrogen chloride. Marine pollutant zinc chloride

Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT) : II - Medium Danger

Hazard labels (DOT) : 8 - Corrosive



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Marine pollutant : Yes (IMDG only)



DOT Packaging Non Bulk (49 CFR 173.xxx)

: 202

DOT Packaging Bulk (49 CFR 173.xxx)

: 242

DOT Symbols

: G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102)

: B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx)

: 154

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)

: 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

: 30 L

DOT Vessel Stowage Location

: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

DOT Vessel Stowage Other

: 40 - Stow "clear of living quarters"

Emergency Response Guide (ERG) Number

: 154

Other information

: No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Transport document description (IMDG)

: UN 1760 CORROSIVE LIQUID, N.O.S., 8, II

UN-No. (IMDG)

: 1760

Proper Shipping Name (IMDG)

: CORROSIVE LIQUID, N.O.S.

Class (IMDG)

: 8 - Corrosive substances

Packing group (IMDG)

: II - substances presenting medium danger

Limited quantities (IMDG)

: 1 L

Marine pollutant

: Yes (IMDG only)



Air transport

Transport document description (IATA)

: UN 1760 Corrosive liquid, n.o.s., 8, II

UN-No. (IATA)

: 1760

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Proper Shipping Name (IATA) : Corrosive liquid, n.o.s.
Class (IATA) : 8 - Corrosives
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard	
	Delayed (chronic) health hazard	

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

zinc chloride	CAS-No. 7646-85-7	15-50%
Hydrochloric Acid 37%	CAS-No. 7647-01-0	.99-4.99%

zinc chloride (7646-85-7)	
CERCLA RQ	1000 lb
Hydrochloric Acid 37% (7647-01-0)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a final TSCA section 4 test rule.
CERCLA RQ	5000 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
zinc chloride(7646-85-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Hydrochloric Acid 37%(7647-01-0)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Full text of H-phrases:

H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

NFPA health hazard

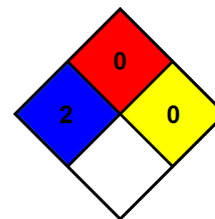
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 0 Minimal Hazard - Materials that will not burn

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

: B

B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product