

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : **SoilSolv**
 Product code :

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Inhibited, Catalyzed Acid Descaler

1.3. Details of the supplier of the safety data sheet

Meras Water Solutions
 4213 Technology Drive Suite A
 Modesto, CA 95356
 209-900-4500
 www.meras.com

1.4. Emergency telephone number

Emergency number : (209) 900-4500

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Corr. 1B H314
 Eye Dam. 1 H318
 STOT SE 3 H335

Full text of H-phrases: see section 16

2.2. Label elements GHS-US

labeling

Hazard pictograms :



Signal word : Danger

Hazard statements : Causes severe skin burns and eye damage.
 Causes serious eye damage. May cause respiratory irritation.

Precautionary statements : Do not breathe fume, mist, vapors.
 Wash hands thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear eye protection, face protection, protective clothing, protective gloves.
 If swallowed: rinse mouth. Do NOT induce vomiting.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 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 or doctor/physician.
 Call a POISON CENTER/doctor/physician if you feel unwell.
 Wash contaminated clothing before reuse.
 Store in a well-ventilated place. Keep container tightly closed. Store locked up.
 Dispose of contents/container in accordance with Local, State, and Federal regulations.

2.3. Hazard not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

(NOTE: If component displays the * (asterisk) symbol, the following statement applies.)

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

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
hydrochloric acid	(CAS No) 7647-01-0	25 – 30	Skin Corr. 1B, H314 STOT SE 3, H335
glycolic acid	(CAS No) 79-14-1	1 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314
*Proprietary Ingredients	*Proprietary Ingredients	*Proprietary Ingredients	*Proprietary Ingredients

(NOTE: If component displays the * (asterisk) symbol, the following statement applies.)

*Chemical names, CAS numbers and/or exact concentrations have been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Causes severe skin burns and eye damage.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Caustic burns/corrosion of the skin.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Harmful if swallowed. FOLLOWING SYMPTOMS MAY APPEAR LATER: Burns to the gastric/intestinal mucosa. Abdominal pain. Gastrointestinal complaints.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Extinguishing media for surrounding fires. Adapt extinguishing media to the environment.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Reactivity	: Decomposes on exposure to temperature rise: release of (highly) toxic gases/vapors (chlorine). Reacts violently with (some) bases: release of heat. Reacts exothermically with (strong) oxidizers: release of toxic and corrosive gases/vapors (chlorine). Reacts exothermically with (strong) reducers: release of highly flammable gases/vapors (hydrogen). Reacts with (some) metals: release of highly flammable gases/vapors (hydrogen).
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5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Isolate from fire, if possible, without unnecessary risk.
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6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Dilute toxic gases/vapors with water spray. Hazardous reaction: measure explosive gas-air mixture. If reacting: dilute combustible/toxic gases/vapors.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Neutralize spill with soda (sodium carbonate). Wash away neutralized product with plentiful water. Carefully collect the spill/leftovers.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe fume, mist, or vapors. Provide good ventilation in process area to prevent formation of vapor. Use only outdoors or in a well-ventilated area. Use personal protective equipment as required.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Incompatible products : Strong bases. Oxidizing agent.
- Storage area : Store in a cool, dry well-ventilated area. Keep container tightly closed when not in use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

hydrochloric acid (7647-01-0)		
USA ACGIH	ACGIH Ceiling (ppm)	2 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	7 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	5 ppm

8.2. Exposure controls

- Personal protective equipment : Avoid all unnecessary exposure.
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or face shield.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
- Other information : When using, do not eat, drink or smoke.
- Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Color : Clear
- Odor : Pungent.
- Odor threshold : No data available
- pH : < 1
- Melting point : No data available
- Freezing point : No data available
- Boiling point : > 200 °F

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Flash point : Will not flash.
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Not flammable
Explosive limits : No data available
Vapor pressure : No data available
Vapor density : No data available

Specific Gravity @ 77° F : 1.155 - 1.175
Solubility : Water: Complete
Partition Coefficient n-Octanol-Water : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available

9.2. Other information

VOC content : 0 g/l CARB VOC

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes on exposure to temperature rise: release of (highly) toxic gases/vapors (chlorine). Reacts violently with (some) bases: release of heat. Reacts exothermically with (strong) oxidizers: release of toxic and corrosive gases/vapors (chlorine). Reacts exothermically with (strong) reducers: release of highly flammable gases/vapors (hydrogen). Reacts with (some) metals: release of highly flammable gases/vapors (hydrogen).

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Contact with base liberates toxic gas.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong bases. Oxidizing agent. May be corrosive to metals.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Hydrogen chloride vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

glycolic acid (79-14-1)	
LD50 oral rat	1950 mg/kg (Rat; Other; Literature study; 2040 mg/kg bodyweight; Rat; Experimental value)
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h (Rat; Experimental value; 3.6 mg/l/4h; Rat; Experimental value)
ATE CLP (oral)	1950.000 mg/kg body weight
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: < 1
Serious eye damage/irritation	: Causes serious eye damage. pH: < 1
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
hydrochloric acid (7647-01-0)	
IARC group	3
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified

Aspiration hazard : Not classified

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Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Caustic burns/corrosion of the

skin. Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Harmful if swallowed.

FOLLOWING SYMPTOMS MAY APPEAR LATER: Burns to the gastric/intestinal mucosa. Abdominal pain. Gastrointestinal complaints.

SECTION 12: Ecological information

12.1. Toxicity

hydrochloric acid (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)
LC50 fish 2	862 mg/l (Leuciscus idus; Pure substance)
TLM fish 1	282 ppm (96 h; Gambusia affinis; Pure substance)
glycolic acid (79-14-1)	
LC50 fish 1	164 mg/l (96 h; Pimephales promelas; Nominal concentration)
EC50 Daphnia 1	141 mg/l (48 h; Daphnia magna; Static system)
LC50 fish 2	> 5000 mg/l (96 h; Brachydanio rerio)
Threshold limit algae 1	44 mg/l (72 h; Selenastrum capricornutum; Nominal concentration)
Threshold limit algae 2	20 mg/l (72 h; Selenastrum capricornutum; Nominal concentration)

12.2. Persistence and degradability

hydrochloric acid (7647-01-0)	
Persistence and degradability	Biodegradability: not applicable. No (test) data on mobility of the components available.
glycolic acid (79-14-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.18 g O ₂ /g substance
ThOD	0.63 g O ₂ /g substance
BOD (% of ThOD)	0.28 % ThOD

12.3. Bioaccumulative potential

hydrochloric acid (7647-01-0)	
Log Pow	0.3
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
glycolic acid (79-14-1)	
Log Pow	-1.11 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Other adverse effects

Other information : Avoid improper release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with Local, State, and Federal regulations.

Ecology - waste materials : Avoid improper to the environment.

SECTION 14: Transport information

14.1. UN Number

UN-No.(DOT) : 1760

Other information : Under 49 CFR 173.154(c) and (b)(1): This product may be shipped as ORM-D or Limited Quantity if the inner packaging's do not exceed 1 L (0.3 gallons) or 1.0 kg (2.2 lbs). This provision does not apply to transportation by vessel or aircraft, except where other means of transportation is impracticable.

14.2. UN proper shipping name

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DOT Proper Shipping Name : UN1760, Corrosive Liquids, N.O.S. (Hydrochloric Acid, Glycolic Acid), 8, PGII
Hazard labels (DOT) : 8 - Corrosive



SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory

hydrochloric acid (7647-01-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
RQ (Reportable quantity, section 101(14) of CERCLA as published on EPA's List of Lists) :	5000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Only if it is an aerosol form (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)
glycolic acid (79-14-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

15.2. International regulations

CANADA

EU-Regulations

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

15.3. US State regulations

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

SECTION 16: Other information

Abbreviations Legend:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Corr. 1B	Skin corrosion/irritation Category 1B
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation

Disclaimer

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