

Safety Data Sheet

LIME DISSOLVER

SDS Revision Date:

12/14/2022



1. Identification

1.1. Product identifier

Product Identity

LIME DISSOLVER

Alternate Names

30-351, Blended Formula, Lime Dissolver, Superior Scale Remover- 5 gallon

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

Intended use

Dissolves lime, scale, urine salts, mineral deposits. Clean concrete, clears lime-clogged hot water and boiler coils, pipes. Also cleans cooling towers, toilet bowls, urinals, valves, steam equipment, etc.

Application Method

Read all precautions and instructions carefully before and after use.

1.3. Details of the supplier of the safety data sheet

Company Name

ComStar International Inc.
20-47 128th Street,
College Point, NY 11356

Telephone No.

718-445-7900
800-328-0142
Fax: 718-353-5998

Emergency 24 HR response No: 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Corrosive to metals: H290
Category 1 May be corrosive to metals

Skin Corr/Irr: H314
Category 1B Causes severe skin burns and eye damage.

Eye Dam/Irr: H318
Category 1 Causes serious eye damage.

Specific target organ toxicity
(single exposure): Category
1

Target Organs - Respiratory
system: H335 Category 3 May cause respiratory irritation

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

SIGNAL WORD

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DANGER

H290 May be corrosive to metals

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H335 May cause respiratory irritation

[Prevention]:

P234 Keep only in original container

P260 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash face, hands and any exposed skin thoroughly after handling

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+330+331 If swallowed: rinse mouth, do not induce vomiting.

P303+361 +353 If on skin (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+340+P310 If inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351 +338: If in eyes: Rinse continuously 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.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

[Storage]:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P406 Store in corrosive resistant polypropylene container with a resistant in liner

Store in a dry place

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Hazards not otherwise classified (HNOC)

None identified

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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

| Ingredient/Chemical Designations | Weight % | GHS Classification | Notes |
|--|----------|--|-------|
| HYDROCHLORIC ACID SOLUTION CAS #: 7647-01-0 | <20 | Metal corrosion: category1 H290 Skin corrosion. category1B H314 Eye dam. category1 H318 Specific target organ toxicity (single exposure): category 1 H335 Target organs - Respiratory system: category 3 H335 | |

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

| | |
|-------------------|---|
| General | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. |
| Inhalation | Remove to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. |
| Eyes | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. |
| Skin | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. |
| Ingestion | Do NOT induce vomiting. Call a physician or poison control center immediately. |

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

| | |
|--------------------|---|
| Overview | Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |
| Notes to Physician | Treat symptomatically |

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5. Fire-fighting measures

5.1. Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

5.2. Unsuitable Extinguishing Media

No information available

Flash Point

No information available

Method -

No information available

5.3. Autoignition Temperature

No information available

5.4. Explosion Limits

Upper

No data available

Lower

No data available

Sensitivity to Mechanical Impact

No information available

Sensitivity to Static Discharge

No information available

5.5. Special hazards arising from the substance or mixture

Corrosive material. Causes burns by all exposure routes. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Hydrogen chloride gas.

5.6. Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

ERG Guide No. ---137

NFPA

Health
3

Flammability
0

Instability
0

Physical hazards
N/A

6. Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not get in eyes, on skin, or on clothing.

6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralizing material (e.g., Chemizorb® H⁺, Merck Art. No. 101595). Dispose of properly. Clean up affected area. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Incompatible Materials. Metals. Strong oxidizing agents. Bases. Sodium hypochlorite. Amines. Fluorine. Cyanides. Alkaline. See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|----------------------------|----------------|--|--|------------------|
| Hydrochloric acid solution | Ceiling: 2 ppm | Ceiling: 7 mg/m ³ (Vacated) Ceiling: 5 ppm (Vacated) Ceiling: 7 mg/m ³ | IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³ | Ceiling: 2 ppm |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location.

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8.2. Exposure controls

| | |
|---------------------------------|--|
| Respiratory | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirators if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| Eyes/face protection | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN 166. |
| Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure |
| Hygiene Measures | Handle in accordance with good industrial hygiene |

9. Physical and chemical properties

| | |
|--|--|
| Appearance | Red colored liquid |
| Odor | Pungent |
| Odor threshold | No information available |
| pH | <1 |
| Melting point / freezing point | -35 °C / -31 °F |
| Initial boiling point and boiling range | 57 °C / 135 °F @ 760 mmHg |
| Flash Point | No information available |
| Evaporation rate (Ether = 1) | No information available |
| Flammability (solid, gas) | Not applicable |
| Upper/lower flammability or explosive limits | Lower Explosive Limit: No data available Upper Explosive Limit: No data available |
| Vapor pressure (Pa) | 125 mbar @ 20 °C |
| Vapor Density | 1.27 |
| Specific Gravity | 1.18 |
| Solubility in Water | Soluble in water |
| Partition coefficient n-octanol/water (Log Kow) | No data available |
| Auto-ignition temperature | No information available |
| Decomposition temperature | No information available |
| Viscosity (cSt) | 1.8 mPa.s @ 15°C |
| Molecular Formula | HCl |
| Molecular Weight | 36.46 |
| Volatiles (% by weight) | N/A |
| Octanol/Water Partition Coefficient | N/A |

9.2. Other information

No other relevant information.

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10. Stability and reactivity

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Contact with metals may evolve flammable hydrogen gas.

10.4. Conditions to avoid

Incompatible products. Excess heat

10.5. Incompatible materials

Metals, Strong oxidizing agents, Bases, sodium hypochlorite, Amines, Fluorine, Cyanides, Alkaline

10.6. Hazardous decomposition products

Hydrogen chloride gas

10.7. Hazardous Polymerization

Contact with metals may evolve flammable hydrogen gas.

11. Toxicological information

Acute toxicity

Product Information

Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------------------|-------------------------|-------------------------|-----------------------|
| Hydrochloric acid solution | 238 - 277 mg/kg (Rat) | > 5010 mg/kg (Rabbit) | 1.68 mg/L (Rat) 1 h |

Toxicologically Synergistic Products No information available.

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

Irritation Causes burns by all exposure routes.

Sensitization No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|-----------|--------|------|-----|-------|------|--------|
|-----------|--------|------|-----|-------|------|--------|

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| | | | | | | |
|----------------------------|-----------|------------|------------|------------|------------|------------|
| Hydrochloric acid solution | 7647-01-0 | Not listed | Not listed | Not listed | Not listed | Not listed |
|----------------------------|-----------|------------|------------|------------|------------|------------|

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

| Classification | Category | Hazard Description |
|------------------------|----------|---------------------------|
| Mutagenic Effects | | No information available |
| Reproductive Effects | | No information available |
| Developmental Effects | | No information available. |
| Teratogenicity | | No information available |
| STOT-single exposure | --- | Respiratory system |
| STOT-repeated exposure | --- | None known |
| Aspiration hazard | --- | No information available |

Symptoms / effects, both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.

| | |
|---------------------------------|---|
| Delayed | Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |
| Endocrine Disruptor Information | No information available |
| Other Adverse Effects | The toxicological properties have not been fully investigated. |

12. Ecological information

12.1. Ecotoxicity

Do not empty into drains. Large amounts will affect pH and harm aquatic organisms.

Aquatic Ecotoxicity

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|----------------------------|------------------|--|----------|----------------------------|
| Hydrochloric acid solution | | 282 mg/L LC50 96 h Gambusia affinis mg/L LC50 48 h Leuciscus idus | | 56mg/L EC50 72h Daphnia |

12.2. Persistence and degradability

Persistence is unlikely based on information available.

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12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

Will likely be mobile in the environment due to its water solubility

12.5. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. Transport information

| | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|----------------------------------|---------------------------------------|--------------------------------------|-----------------------------|
| 14.1. UN number | UN 1789 | UN 1789 | UN 1789 |
| 14.2. UN proper shipping name | UN 1789, Hydrochloric acid, solution, | Hydrochloric acid, solution | Hydrochloric acid, solution |
| 14.3. Transport hazard class(es) | DOT Hazard Class: 8 | IMDG: 8 Sub Class: Not Applicable | Air Class: 8 |
| 14.4. Packing group | II | II | II |

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

United States of America Inventory

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-----------|--------|------|---|-----------------------------|
|-----------|--------|------|---|-----------------------------|

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| | | | | |
|----------------------------|-------------------|---|--------|----|
| Hydrochloric acid solution | 76solution47-01-0 | X | ACTIVE | -- |
|----------------------------|-------------------|---|--------|----|

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

-- - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea(KECL)

| Component | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|---|-----|------|-----------|-------|------|------|------|-------|----------|
| Hydrochloric acid solution 7732-18-5 | X | -- | 231-595-7 | X | X | X | X | X | KE-20189 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313

| Component | CAS No | Weight % | SARA 313 – Threshold Values % |
|----------------------------|-----------|----------|-------------------------------|
| Hydrochloric acid solution | 7647-01-0 | >20% | 1.0 |

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|----------------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Hydrochloric acid solution | -- | 5000 lb. | -- | -- |

Clean Air Act

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|----------------------------|-----------|-------------------------|-------------------------|
| Hydrochloric acid solution | X | -- | |

OSHA - Occupational Safety and Health Administration; Not applicable

| Component | Specifically Regulated Chemicals | Highly Hazardous Chemicals |
|----------------------------|----------------------------------|----------------------------|
| Hydrochloric acid solution | -- | TQ: 5000 lb |

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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)

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|----------------------------|--------------------------|----------------|
| Hydrochloric acid solution | 5000 lb | 5000 lb |

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|----------------------------|---------------|------------|--------------|----------|--------------|
| Hydrochloric acid solution | X | X | X | X | X |

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product contains the following DHS chemicals:
Legend - STQs = Screening Threshold Quantities, APA = A placarded amount.

| Component | DHS Chemical Facility Anti-Terrorism Standard |
|----------------------------|--|
| Hydrochloric acid solution | Release STQs - 15000lb (concentration >=37%) Release STQs - 5000lb (anhydrous) Theft STQs - 500lb (anhydrous) |

Other International Regulations

Mexico – Grade No information available

Authorization/Restrictions according to EU REACH

| Component | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|----------------------------|---|---|--|
| Hydrochloric acid solution | --- | Use restricted. See item 75. (see link for restriction details) | --- |
| | | | |

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

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16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

End of Document