





## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

SDS-10121

TMB Stop Solution

Rev. Number: 05 Rev. Date: Aug 1 , 2020

Symptoms of poisoning may occur after exposure to dust, fumes or particulates; seek medical attention if feeling unwell.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly. Immediate medical treatment is necessary. Failure to treat burns can prevent wounds from healing.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor. If easy to do so, remove contact lenses if worn.

· **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

### 5 Fire-Fighting Measures

· **Extinguishing media:**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture:** No further relevant information available.

· **Advice for firefighters:**

· **Protective equipment:**

Mouth respiratory protective device.

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

### 6 Accidental Release Measures

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

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

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

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

· **Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

111-46-6	Diethylene Glycol	6.9 ppm
7647-01-0	Hydrochloric acid	1.8 ppm
57-09-0	cetrimonium bromide	1.2 mg/m3

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· <b>PAC-2:</b>		
111-46-6	Diethylene Glycol	140 ppm
7647-01-0	Hydrochloric acid	22 ppm
57-09-0	cetrimonium bromide	14 mg/m3
· <b>PAC-3:</b>		
111-46-6	Diethylene Glycol	860 ppm
7647-01-0	Hydrochloric acid	100 ppm
57-09-0	cetrimonium bromide	81 mg/m3

### 7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**  
Do not store together with oxidizing and acidic materials.  
Store at Ambient temperature (22 - 28 °C)
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

### 8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**  
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.  
At this time, the remaining constituent has no known exposure limits.

<b>111-46-6 Diethylene Glycol</b>	
WEEL	Long-term value: 10 mg/m <sup>3</sup>
<b>7647-01-0 Hydrochloric acid</b>	
PEL	Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm
REL	Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm
TLV	Ceiling limit value: 2.98 mg/m <sup>3</sup> , 2 ppm

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing and wash before reuse.

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Select glove material based on penetration times, rates of diffusion and degradation.

· **Material of gloves:**

Acid resistant gloves.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:**



Protective work clothing

· **Limitation and supervision of exposure into the environment:**

Keep away from drains, surface and ground waters.

Avoid release into the environment.

### 9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:**

Liquid

**Color:**

Colorless

· **Odor:**

Odorless

· **Odor threshold:**

Not determined.

· **pH-value @ 20 °C (68 °F):**

0.5-1.0

· **Change in condition**

**Melting point/Melting range:**

Not determined.

**Boiling point/Boiling range:**

100 °C (212 °F)

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- **Flash point:** None
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** Not applicable
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower:** Not determined.
  - Upper:** Not determined.
- **Vapor pressure:** Not determined.
- **Density @ 20 °C (68 °F):** 1.002 g/cm<sup>3</sup> (8.362 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
  - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 3.0 %
  - Water:** 95.4 %
  - VOC content:** 3.0 %
  - Solids content:** 0.6 %
- **Other information:** No further relevant information available.

### 10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** Strong acids, strong bases, strong oxidizing agents and strong reducing agents.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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### 11 Toxicological Information

· **Information on toxicological effects:**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**111-46-6 Diethylene Glycol**

Oral	LD50	12,565 mg/kg (Rat)
Dermal	LD50	11,890 mg/kg (Rabbit)

**7647-01-0 Hydrochloric acid**

Oral	LD50	700 mg/kg (Rat) 900 mg/kg (Rabbit)
Dermal	LD50	5,010 mg/kg (Rabbit)
Inhalative	LC50/4 h	6.41 mg/l (Rat) Exposure to the mist and vapor may erode exposed teeth. Causes corrosive action on the mucous membranes.

**57-09-0 cetrimonium bromide**

Oral	LD50	410 mg/kg (Rat)
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· **Primary irritant effect:**

· **On the skin:**

Strong caustic effect on skin and mucous membranes.

**7647-01-0 Hydrochloric acid**

Irritation of skin	Skin Irritation	(Rabbit)
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· **On the eye:**

Strong irritant with the danger of severe eye injury.

Corrosive effect.

Causes serious eye irritation.

**7647-01-0 Hydrochloric acid**

Irritation of eyes	Eye Irritation	(Rabbit)
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· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Irritant

Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories:**

· **IARC (International Agency for Research on Cancer):**

7647-01-0	Hydrochloric acid	3
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· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

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### 12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:**  
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

#### 7647-01-0 Hydrochloric acid

EC50	3.6 mg/l (Bluegill/sunfish)
	>56 mg/l (Daphnia)

- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**  
Generally not hazardous for water.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
Harmful to aquatic organisms  
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

### 13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** UN3264
- **UN proper shipping name:**
- **DOT** Corrosive liquid, acidic, inorganic, n.o.s.
- **ADR/ADN** UN3264 Corrosive liquid, acidic, inorganic, n.o.s.
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

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· **Transport hazard class(es):**

· **DOT**



- **Class:** 8 Corrosive substances
- **Label:** 8

· **ADR/ADN**



- **Class:** 8 (C1) Corrosive substances
- **Label:** 8

· **IMDG, IATA**



- **Class:** 8 Corrosive substances
- **Label:** 8
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** II
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Warning: Corrosive substances
- **Danger code (Kemler):** 80
- **EMS Number:** F-A,S-B
- **Segregation groups:** Acids
- **Stowage Category** B
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations:** On passenger aircraft/rail: 1 L  
On cargo aircraft only: 30 L

· **ADR/ADN**

- **Excepted quantities (EQ):** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· **IMDG**

- **Limited quantities (LQ):** 1L

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- **Excepted quantities (EQ):** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml
- **UN "Model Regulation":** UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II

### 15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

- **Section 355 (extremely hazardous substances):**

7647-01-0	Hydrochloric acid
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- **Section 313 (Specific toxic chemical listings):**

7647-01-0	Hydrochloric acid
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- **TSCA (Toxic Substances Control Act):**

All ingredients are listed or exempt from listing.

- **California Proposition 65:**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **New Jersey Right-to-Know List:**

7647-01-0	Hydrochloric acid
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- **New Jersey Special Hazardous Substance List:**

7647-01-0	Hydrochloric acid	CO, R1
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- **Pennsylvania Right-to-Know List:**

111-46-6	Diethylene Glycol
7647-01-0	Hydrochloric acid

- **Pennsylvania Special Hazardous Substance List:**

7647-01-0	Hydrochloric acid	E
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- **Carcinogenic categories:**

- **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH):**

7647-01-0	Hydrochloric acid	A4
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- **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms:**



GHS05

· **Signal word:** Danger

· **Hazard-determining components of labeling:**

Hydrochloric acid

· **Hazard statements:**

H314 Causes severe skin burns and eye damage.

H402 Harmful to aquatic life.

· **Precautionary statements:**

P260 Do not breathe dusts or mists.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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/doctor.

P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

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

· **National regulations:**

None of the ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision:** 07/10/2017 / 4

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

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HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

**\* Data compared to the previous version altered.**

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