

### SECTION 1: Product and company identification

Product name : Machine Dish Detergent  
 Use of the substance/mixture : Detergent  
 Product code : 0224  
 Company : Total Solutions  
 P.O. Box 240014  
 Milwaukee, WI 53224 - USA  
 T (414) 354-6417  
 Emergency number : Chemtec: (800) 424-9300

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

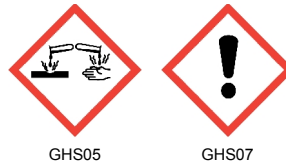
##### GHS-US classification

Met. Corr. 1 H290  
 Acute Tox. 4 (Oral) H302  
 Skin Corr. 1B H314

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : May be corrosive to metals  
 Harmful if swallowed  
 Causes severe skin burns and eye damage

Precautionary statements (GHS-US) : Keep only in original container  
 Do not breathe mist, spray  
 Wash thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Wear eye protection, protective clothing, protective gloves  
 If swallowed: Call a doctor, a POISON CENTER if you feel unwell  
 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 doctor, a POISON CENTER  
 Specific treatment (see First aid measures on this label)  
 Rinse mouth  
 Wash contaminated clothing before reuse  
 Absorb spillage to prevent material damage  
 Store locked up  
 Store in corrosive resistant container with a resistant inner liner  
 Dispose of contents/container to comply with local/regional/national/international regulations.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

Full text of H-phrases: see section 16

#### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
potassium hydroxide	(CAS No) 1310-58-3	7-13	Met. Corr. 1, H290 Acute Tox. 3 (Oral), H301 Skin Corr. 1A, H314

# Machine Dish Detergent

## Safety Data Sheet

**TOTAL**  
SOLUTIONS™

Name	Product identifier	%	GHS-US classification
POTASSIUM SILICATE	(CAS No) 1312-76-1	1-5	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
tetrasodium ethylenediaminetetracetate	(CAS No) 64-02-8	1-5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
sodium hypochlorite, solution	(CAS No) 7681-52-9	0.5-1.5	Ox. Liq. 2, H272 Skin Corr. 1B, H314 STOT SE 3, H335

A specific chemical identity and/or percentage of composition has been withheld as a trade secret. Any concentration shown as a range is to protect confidentiality or is due to batch variation.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.
- 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. Call a poison center/doctor/physician if you feel unwell.

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

- Symptoms/effects : Causes severe skin burns and eye damage. Harmful if swallowed.
- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Caustic burns/corrosion of the skin.
- Symptoms/effects after eye contact : Causes serious eye damage. Corrosion of the eye tissue. Permanent eye damage.
- Symptoms/effects after ingestion : Harmful if swallowed. Burns to the gastric/intestinal mucosa. Gastrointestinal complaints.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : All extinguishing media allowed.

#### 5.2. Special hazards arising from the substance or mixture

- Reactivity : Upon combustion: CO and CO<sub>2</sub> are formed. Toxic fumes may be released.

#### 5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
- 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.

##### 6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective goggles. Protective clothing.
- Emergency procedures : Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Stop leak if safe to do so. Stop release. Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution.

#### 6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers.
- Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.
- Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations. Always add the product to the water for dilution/mixture. Never add water to this product.
- Storage conditions : Keep container closed when not in use.
- Incompatible products : Acids. reducing agents.
- Incompatible materials : Cleaning agent.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: (strong) acids.
- Storage area : Keep only in the original container. Store in a dry area. Store in a cool area.
- Special rules on packaging : meet the legal requirements.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<b>POTASSIUM SILICATE (1312-76-1)</b>		
Not applicable		
<b>potassium hydroxide (1310-58-3)</b>		
ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
<b>sodium hypochlorite, solution (7681-52-9)</b>		
Not applicable		
<b>tetrasodium ethylenediaminetetracetate (64-02-8)</b>		
Not applicable		

#### 8.2. Exposure controls

- Personal protective equipment : Use appropriate personal protective equipment when risk assessment indicates this is necessary. Gloves. Safety glasses. Protective clothing.



### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Hazy. light yellow. Liquid.
- Odor : chlorine-like
- Odor threshold : No data available
- pH : > 12.5
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : > 200 °F Closed Cup
- Relative evaporation rate (butyl acetate=1) : No data available
- Flammability (solid, gas) : No data available
- Explosion limits : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Vapor pressure : No data available
- Relative density : No data available
- Relative vapor density at 20 °C : No data available

# Machine Dish Detergent

## Safety Data Sheet

Specific gravity / density	: 1.18 g/ml
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
VOC content	: 0 %

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Upon combustion: CO and CO<sub>2</sub> are formed. Toxic fumes may be released.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

May be corrosive to metals.

#### 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: Harmful if swallowed.

potassium hydroxide (1310-58-3)	
LD50 oral rat	273 mg/kg (Rat)
ATE CLP (oral)	273 mg/kg body weight
tetrasodium ethylenediaminetetracetate (64-02-8)	
LD50 oral rat	> 2000 mg/kg (Rat)
ATE CLP (oral)	500 mg/kg body weight

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: > 12.5
Serious eye damage/irritation	: Not classified pH: > 12.5
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
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Caustic burns/corrosion of the skin.
Symptoms/effects after eye contact	: Causes serious eye damage. Corrosion of the eye tissue. Permanent eye damage.
Symptoms/effects after ingestion	: Harmful if swallowed. Burns to the gastric/intestinal mucosa. Gastrointestinal complaints.

### SECTION 12: Ecological information

#### 12.1. Toxicity

potassium hydroxide (1310-58-3)	
LC50 fish 2	80 mg/l (LC50; 96 h)
tetrasodium ethylenediaminetetracetate (64-02-8)	

# Machine Dish Detergent

## Safety Data Sheet

tetrasodium ethylenediaminetetracetate (64-02-8)	
LC50 fish 1	121 mg/l (LC50; 96 h)
EC50 Daphnia 1	625 mg/l (EC50; 24 h)
Threshold limit algae 1	> 100 mg/l (EC0; 72 h)

### 12.2. Persistence and degradability

potassium hydroxide (1310-58-3)	
Persistence and degradability	Biodegradability: not applicable. No (test) data on mobility of the components available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

tetrasodium ethylenediaminetetracetate (64-02-8)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	< 0.002 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.54 - 0.58 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

potassium hydroxide (1310-58-3)	
Bioaccumulative potential	Not bioaccumulative.
tetrasodium ethylenediaminetetracetate (64-02-8)	
Log Pow	-2.6
Bioaccumulative potential	Bioaccumulation: not applicable.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

### Department of Transportation (DOT)

Transport document description : UN1760 Corrosive liquids, n.o.s. (Sodium Hypochlorite, Potassium Hydroxide), 8, II  
 UN-No.(DOT) : UN1760  
 Proper Shipping Name (DOT) : Corrosive liquids, n.o.s.  
 Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136  
 Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : II - Medium Danger  
 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,IB2,T11,TP2,TP27  
 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  
 DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

### Additional information

Emergency Response Guide (ERG) Number : 154

# Machine Dish Detergent

## Safety Data Sheet

Other information : This product may be eligible to be shipped as a Limited Quantity or Consumer Commodity ORM-D utilizing the exception found at 49 CFR 173.154.

### ADR

No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

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

potassium hydroxide (1310-58-3)	
Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	1000 lb
sodium hypochlorite, solution (7681-52-9)	
Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	100 lb

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

## SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

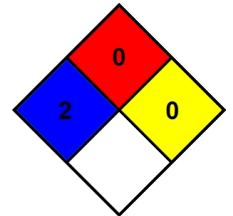
Full text of H-phrases:

H272	May intensify fire; oxidizer
H290	May be corrosive to metals
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation

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.



Prepared by: Technical Department

*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. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.*