

# Material Safety Data Sheet

## Section 1 Product Identification

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Product Name: **Machine Shop Clean (Bioclean)**

Chemical Name or synonyms: Alkaline liquid detergent

### Manufacturer's Name

Chem-Tech, Inc.

6551 Jansen Avenue NE – Suite 106

Albertville, MN 55301

Emergency: 800-535-5053

Information: 763-417-1380

Fax: 763-417-1389

## Section 2 Chemical Ingredients

<u>Chemical Name</u>	<u>CAS#</u>	<u>%</u>	<u>Threshold Limit Value</u>	<u>Permissible Exposure Limit</u>
Water	7732-18-5		NE	NE
Glycol ether EB	111-76-2	5-10	20 ppm skin	25 ppm skin
Sodium metasilicate	6834-92-0	1-5	2 mg/m <sup>3</sup> (dust)	2mg/m <sup>3</sup> (dust)
Nonylphenol ethoxylate	9016-45-9	1-5	NE	NE

Balance of ingredients are not hazardous as defined by OSHA

## Section 3 Physical Data

Form: Liquid

Color: Red

Odor: Slight solvent

Specific Gravity: 1.06 - 1.07

pH as is: 12.2 - 12.7

pH (1% vol): 9.5 - 10.5

Vapor Density (Air = 1) : &gt;1.0

% VOC by weight: &lt;10

Boiling Point °F: approx. 200

Evaporation Rate (Water = 1) : Similar to water

Solubility in Water: Complete

Vapor pressure: 0.88 mm hg @ 100° F

## Section 4 Fire Information

**Flash Point (Method) °F:** greater than 200 Cleveland Open Cup**Flammable limits in air approximate % by volume:** Lower: 1.1 Upper: 10.6**Unusual Fire and Explosion Hazards:** Contact with metal can form hydrogen gas that is flammable and can form explosive mixtures with air. High temperatures may create heavy flammable vapors that may settle along ground level and low spots to create an invisible fire hazard.**Extinguishing Agents:** Foam, carbon dioxide, dry chemical, water fog, water**Fire fighting methods:** Evacuate area and fight fire from a safe distance. If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water spray to cool adjacent structures and to protect personnel. Shut off source of flow if possible. Stay away from storage tank ends. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of storage tank due to fire. Fire fighters must wear MSHA/NIOSH approved positive pressure breathing apparatus with full face mask and full protective equipment.

## Section 5 Health Hazard Data - Signs and Symptoms of Overexposure:

Probable Routes of Entry: Eyes, skin, inhalation

Eyes: Direct contact will cause severe irritation and burns if not properly treated. Effects may range from mild to irreversible damage and blindness depending upon length of exposure, solution concentration and first aid measures.

- Skin:** This product contains materials that can cause skin irritation. Prolonged or repeated contact may result in severe irritation or damage. Prolonged exposure to diluted product can cause irritation.
- Inhalation:** Overexposure by inhalation of misted product may lead irritation in respiratory tract, producing a burning, choking sensation. Caution should be taken to prevent atomizing or misting of this product without proper respiratory protection.
- Ingestion:** Ingestion is not expected to be a primary route of exposure. Do not ingest. Material will cause severe burns in mouth, throat and stomach. Note: Aspiration is a secondary hazard and should be expected. Product will attack lining of esophagus and stomach.

Medical Conditions Aggravated by Exposure: Pre-existing skin disorders.

## **Section 6 Emergency First Aid Procedures**

- Eyes:** Check for and remove contact lenses. Flush immediately with copious amounts of water for 15 minutes while holding eyelids apart to ensure complete irrigation of eye and eyelid tissues. Take exposed individual immediately to a health care professional, preferably an ophthalmologist, for emergency first aid and further evaluation.
- Skin:** Remove contaminated clothing. Immediately wash exposed area with copious amounts of water. Repeat washing. If redness or irritation occurs, seek immediate medical attention. Launder contaminated clothing before reuse.
- Inhalation:** If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty breathing or is cyanotic, seek a health care professional immediately. Administer CPR if necessary.
- Ingestion:** Drink 1-2 large glasses of milk or water. Obtain immediate medical aid or call poison control. Do not induce vomiting unless directed by a physician. During vomiting there is a danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Gastric lavage should be performed only by qualified medical personnel. Keep affected person warm and at rest.

## **Section 7 Reactivity Data**

- Stability:** Stable at room temperature (68F) when stored and used under proper conditions.
- Incompatibility:** Avoid contact with acids and oxidizing materials. Contact with metals can form flammable hydrogen gas.
- Hazardous Decomposition Products:** Smoke, carbon dioxide, carbon monoxide, oxides of nitrogen and sulfur, reactive hydrocarbons and irritating vapors.
- Hazardous Polymerization:** Will not occur.

## **Section 8 Spill & Leak Procedures**

- Procedures for Cleanup:** Wear protective gear. Small spills: Mop thoroughly and rinse with water.
- Large Spills:** Evacuate area. Eliminate ignition sources. Block potential routes to water systems (sewers, streams, etc.) with inert material such as sand or dirt. Salvage for reuse if possible. Place into disposal containers. Wash down affected areas with clear water. RCRA regulated. Call local Emergency Response agency to report spill.
- Waste Disposal:** Contact the proper county, state or federal authorities. RCRA regulated.

## **Section 9 Special Protection Information**

- Ventilation Type Required:** General or local may be used to reduce vapors or mists. Maintain below the specified exposure limits.

Protective Gloves:	Rubber, neoprene, and nitrile
Respiratory Protection:	Not necessary under normal use conditions and ventilation. If vapors are generated, wear NIOSH respirator for organic vapors.
Eye Protection:	Goggles or splash-proof glasses
Other Equipment:	Water source for eye and skin wash. Rubber boots to keep feet dry

### Section 10 Special Precautions

Product should be stored between 40 and 95°F. Store out of direct sunlight. Keep out of reach of children. Keep container closed when not in use. For industrial and institutional use only. Mix only with water. Thoroughly rinse empty containers before disposal. Use only in well ventilated area. Do not breathe vapors. Wash hands thoroughly after handling.

### Section 11 Toxicity Data

#### Toxicity:

<u>Ingredient</u>	<u>LD50 - Oral</u>	<u>LD50 – skin absorption Rabbit</u>	<u>LC50 - Inhalation</u>	<u>Effects</u>
Glycol ether EB	470 mg/kg (rat)	220 mg/kg (rabbit)	450 ppm/4 hr (rat)	ND
Sodium metasilicate	1153 mg/kg (rat)	ND	ND	Corrosive
Nonylphenol ethoxylate	1600 mg/kg (rat)	> 2000 mg/kg	ND	ND

#### Carcinogenicity:

<u>Ingredient</u>	<u>NTP</u>	<u>IARC</u>	<u>OSHA</u>
Glycol ether EB	No	No	No
Sodium metasilicate	No	No	No
Nonylphenol ethoxylate	No	No	No

#### Other effects:

<u>Ingredient</u>	<u>Reproductive Toxicity</u>	<u>Teratogenicity</u>	<u>Mutagenicity</u>
Glycol ether EB	See note below	Laboratory animals effected	ND
Sodium metasilicate	ND	ND	ND
Nonylphenol ethoxylate	ND	ND	ND

Glycol ether EB – inhalation exposure to pregnant rabbits caused some toxicity to mother and fetus at 200 ppm, but no effects at 100 ppm. Rat studies indicate the rat kidneys may be the target organs for over exposure, but rat liver changes may also be evident. There is no evidence that this occurs in humans.

### Section 12 Ecological Information

#### Ingredient

Glycol ether EB	Moderately biodegradable / BCF <100 / when released into air, half life expected to be less than 1 day / LC50/96 hr values for fish are >100 mg/l / not expected to be toxic to aquatic life.
Sodium metasilicate	Breaks down to mineralized materials
Nonylphenol ethoxylate	Biodegradable

### Section 13 Hazard Rating – HMIS

0 = minimal    1 = slight    2 = moderate    3 = serious    4 = severe  
 Health: 2    Reactivity: 0    Fire: 1    Protective equipment = B (gloves & glasses)

### Section 14 Regulatory Information

#### • Chemical Inventory Status - part 1 •

<u>Ingredient</u>	<u>TSCA</u>	<u>EC</u>	<u>Japan</u>	<u>Australia</u>
Glycol ether EB	Yes	Yes	Yes	Yes

