

**1. IDENTIFICATION**

Product Name: Top-Brite™

Catalog No.: TT-720-1

**Manufactured for:**

Carrier Enterprises LLC

**BY:**

Specialty Chemical Manufacturing, Inc.

A DiversiTech Company

6650 Sugarloaf Parkway #100, Duluth, GA, 30097

EMERGENCY Phone No.: +1 800.255.3924 Chem-Tel (Chemical Emergencies)

Phone (For Information): +1 678.542.3600

**2. HAZARDOUS INGREDIENTS INFORMATION**

INGREDIENT	CAS No.	EINECS No.	% or Range	Symbol	Risk Phrases
Water	7732-18-5	231-791-2	60-8		
Sodium hydroxide	1310-73-2	215-185-5	15-25	C	R35

**Additional information:** For the wording of the listed risk phrases refer to section 15.**3. HAZARDS IDENTIFICATION****Overview:** This product is corrosive to skin and eyes. Breathing mists or spray can damage breathing passages. It may be harmful or fatal if swallowed**Inhalation:** Severe irritant. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur.**Ingestion:** Corrosive! Swallowing may cause severe burns of mouth, throat, and stomach. Severe scarring of tissue and death may result. Symptoms may include bleeding, vomiting, diarrhea, fall in blood pressure. Damage may appear days after exposure.**Skin Contact:** Corrosive! Contact with skin can cause irritation or severe burns and scarring with greater exposures.**Eye Contact:** Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness.**Chronic Exposure:** Prolonged contact with dilute solutions or mists has a destructive effect upon tissue.**Aggravation of Pre-existing Conditions:** Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.**4. FIRST AID****Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.**Ingestion:** DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately after administering first aid, or call the nearest Poison Control Center or the National Poison Control Hotline at 1-800-222-1222 for advice.**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately if there are burns or if irritation persists or gets worse. Wash clothing before reuse. Discard contaminated leather shoes.**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately after administering first aid.**Note to Physician:** Perform endoscopy in all cases of suspected sodium hydroxide ingestion. In cases of severe esophageal corrosion, consider the use of therapeutic doses of steroids. General supportive measures with continual monitoring of gas exchange, acid-base balance, electrolytes, and fluid intake are also required.

**5. FIREFIGHTING MEASURES**

Not a fire hazard. Product can react with non-ferrous metals to generate flammable hydrogen gas.

**Explosion:** May release hazardous quantities of hydrogen gas and cause fire or explosion when reacting with incompatible materials.

**Fire Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.

**Special Information:** Mists and spray are corrosive. If this material is involved in a fire, wear full turnout gear including a NIOSH-approved self-contained breathing apparatus with full face-piece operated in the pressure demand or other positive pressure mode.

**6. SPILL/ACCIDENTAL RELEASE MEASURES**

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Contain and recover liquid when possible. Do not flush caustic residues to the sewer. Residues from spills can be diluted with water, then neutralized with dilute acid such as acetic, citric, hydrochloric or sulfuric. Absorb neutralized caustic residue on clay, vermiculite or other inert substance and package in a suitable container for disposal. Do not use aluminum tools to collect absorbed material or aluminum containers to store collected waste US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

Remove contaminated clothing immediately. Remove unnecessary personnel from the area of the spill.

**7. HANDLING AND STORAGE**

Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, and incompatibles. Always add this product to water, while stirring; never the reverse. Avoid splashing while mixing. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do not store with aluminum or magnesium. Do not mix with acids or organic materials. Keep this and all chemicals out of the reach of children. Wash thoroughly after handling.

**8. EXPOSURE CONTROLS /PERSONAL PROTECTION****Airborne Exposure Limits:**

OSHA Permissible Exposure Limit (PEL): 15 mg/m<sup>3</sup> max. (based on sodium hydroxide content)

ACGIH Threshold Limit Value (TLV): 15 mg/m<sup>3</sup> max. (based on sodium hydroxide content)

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *"Industrial Ventilation, A Manual of Recommended Practices"*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in an oxygen-deficient atmosphere.

**Skin Protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:** Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities or a source of running water in the work area.

**Work Hygienic Practices:** Use proper industrial hygiene practices to minimize hazardous exposure. Wash hands after handling this material, and before eating or smoking.

**9. PHYSICAL/CHEMICAL CHARACTERISTICS**

Boiling Point:>220°F

Specific gravity (H<sub>2</sub>O = 1): 1.22

Vapor pressure (mm Hg): Same as water

Melting Point (Pour Point): <25°F

Vapor Density (Air = 1): Same as water                      Evaporation Rate (Water = 1): ~1  
Solubility in water: Water miscible                              pH@ 25°C: 14+  
Appearance and odor: Dark brown liquid with a slight molasses-like odor

#### 10. STABILITY and REACTIVITY DATA

**Stability:** Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:** Sodium oxide. Decomposition by reaction with non-ferrous metals releases flammable and explosive hydrogen gas.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Sodium hydroxide in contact with acids and organic halogen compounds, especially trichloroethylene, may cause violent reactions. Contact with nitromethane and other similar nitro compounds causes formation of shock-sensitive salts. Contact with metals such as aluminum, magnesium, tin, and zinc cause formation of flammable hydrogen gas. Sodium hydroxide, even in fairly dilute solution, reacts readily with various sugars to produce carbon monoxide. Precautions should be taken including monitoring the tank atmosphere for carbon monoxide to ensure safety of personnel before vessel entry.

**Conditions to Avoid:** Extreme heat, incompatibles.

#### 11. TOXICOLOGY INFORMATION

Sodium hydroxide, CAS #1310-73-2:

**Irritation data:**

Skin, rabbit: 500 mg/24H severe;

Eye rabbit: 50 ug/24H severe.

Investigated as a mutagen.

NTP Carcinogen: No

#### 12. ECOLOGICAL INFORMATION

**Environmental Fate:** No information found for mixture.

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic. This product is not expected to bio-accumulate.

**Special Remarks on the Products of Biodegradation:** Not available.

#### 13. DISPOSAL CONSIDERATIONS

Treat empty containers as hazardous. Dispose of spill-clean up and other wastes in accordance with Federal, State, and local regulations. Consign any recovered product not suitable for reuse or recycling to an appropriate and approved waste treatment or disposal facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

#### 14. TRANSPORTATION INFORMATION

**US DOT:** Corrosive liquid, basic, inorganic, N.O.S. (contains sodium hydroxide), 8, UN3266, PGII  
**International (Water, I.M.O.)**

**Proper Shipping Name:** Corrosive liquid, basic inorganic, N.O.S. (contains sodium hydroxide)

**Hazard Class:** 8

**UN/NA:** UN3266

**Packing Group:** II

#### 15. REGULATORY INFORMATION

**EC Classification:** 215-185-5.

**Risk phrases:**

R35: Causes severe burns.

**Safety phrases**

S2: Keep out of reach of children

S24/25: Avoid contact with skin and eyes

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39: Wear suitable, gloves and eye/face protection.

S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**US EPA****Comprehensive Environmental Response Compensation and Liability**

**Act of 1980 (CERCLA)** requires notification of the National Response Center of release quantities of Hazardous Substances is not required for this material.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)** Title III requires emergency planning based on threshold planning quantities and release reporting based on reportable quantities in 40 CFR 355 (used for SARA 302, 304, 311, and 312) is not required for quantities below 250 pounds.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)** Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This material is not subject to reporting requirements.

**Toxic Substances Control Act (TSCA)** Status: The ingredients of this product are on the TSCA inventory.

**State Right to Know**

California Proposition 65: This product does not contain any materials on the Proposition 65 List of Chemicals Known to Cause Cancer or Reproductive Toxicity.

Massachusetts: Hazardous substances and extraordinarily hazardous substances must be identified.

Pennsylvania: Hazardous substances must be identified.

California SCAQMD Rule 443.1 (VOC's): None

**Chemical Inventory Status**

Ingredient	TSCA	EC	Japan	Australia	Korea	DSL	NDSL	Phil.
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Sodium Hydroxide (1310-73-2)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
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Federal, State & International Regulations

	SARA 302	SARA 313	TSCA	CERCLA	261.33	8(d)
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Ingredient	RQ	TPQ	Chemical	RCRA	List -
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Sodium Hydroxide (1310-73-2)	No	No	No	1000	No
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Chemical Weapons Convention: No

TSCA 12(b): No CDTA: No

SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No Reactivity: Yes (Mixture / Liquid)

**Australian Hazchem Code:** 2R

**Poison Schedule:** S6

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS CLASS:D2B

**16. OTHER INFORMATION:**

**NFPA Ratings:** Health: **3** Flammability: **0** Reactivity: **1**

**Label Hazard Warning:**

CORROSIVE POISON! Contains Sodium Hydroxide. May be fatal if swallowed. Harmful if inhaled. May cause burns to skin and eyes.

**Label Precautions:**

Do not use this product until you have read all warning statements on bottle and consulted the Material Safety Data Sheet

Do not use this product without skin and eye protection.

Keep container closed.

Wash thoroughly after use.

**Label First Aid:**

If swallowed, DO NOT INDUCE VOMITING. Immediately drink 3-4 glasses of water followed by a large glass of citrus juice. Call a physician immediately. Eyes: flush eyes with running water for at least 15 minutes while lifting lids to rinse the area behind the eyelids. Skin: flush affected area with running water for at least 15 minutes or until skin no longer feels slick while removing contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing does not return to normal within a few minutes, get medical attention.

**Product Use:**

Air conditioning and refrigeration condenser coil cleaner

**17. ADDITIONAL INFORMATION:**

This information is provided in accordance with the requirements of the UK Health and Safety at Work Act 1974, and specifically in order to assist users of the product to make their 'assessment of health risks' as required by the UK Control of Substances Hazardous to Health Regulation 1988 (COSHH assessments). Provision of this information does not preclude users from seeking advice from other sources as indicated in the COSHH guides.

This information is intended to cover potential hazards at the place of work and does not detail medical uses, indications, contra-indications and precautions for the treatment of patients.

This information is, to the best of our knowledge and belief, accurate and reliable as of the date completed. However no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the completeness and suitability of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information.