

**MATERIAL SAFETY DATA SHEET
MSDS P-109 REVISION 12**

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SUBSTANCE IDENTIFICATION

SUBSTANCE: LINEAR ALKYL BENZENESULFONIC ACID

TRADE NAMES/SYNONYMS: **DODECYLBENZENESULFONIC ACID (97%), SULFRAMIN 1296**

CHEMICAL FAMILY: Sulfonic acid

TSCA NAME: Benzenesulfonic acid, Mono-C10-C13 alkyl derivatives

I.D. NUMBERS: 961008, 961017, 818010

NFPA RATINGS (Scale 0-4, where 4=high degree of hazard): HEALTH=3 FLAMMABILITY=1 REACTIVITY=1
HMIS RATINGS (Scale 0-4, where 4=severe hazard): HEALTH=3 FLAMMABILITY=1 REACTIVITY=1

HAZARDOUS INGREDIENT INFORMATION

COMPONENT: DODECYLBENZENESULFONIC ACID	CAS# 68584-22-5
COMPONENT: SULFURIC ACID	CAS# 7664-93-9
1 mg/m ³ OSHA & ACGIH TWAs	
3 mg/m ³ ACGIH STEL	

Carcinogen status of components: Not listed as carcinogenic by NTP, IARC, or OSHA. (See note on strong inorganic acid mists containing sulfuric acid in Health Hazard Data section).

PHYSICAL AND CHEMICAL DATA

DESCRIPTION: Clear to hazy, dark, viscous liquid with a sulfur dioxide odor.

BOILING POINT: >400 °F (>204 °C) SPECIFIC GRAVITY: 1.04 @ 21°C

SOLUBILITY IN WATER: Miscible. pH: <1.0 (1% solution)

FIRE AND EXPLOSION DATA

FLASH POINT: >200°F (>93°C) OSHA FLAMMABILITY CLASSIFICATION: III B

FIRE AND EXPLOSION HAZARD - Slight fire hazard when exposed to heat or flame.

FIRE FIGHTING MEDIA - Dry chemical, carbon dioxide, water spray or regular foam. For larger fires, use water spray, fog or regular foam.

FIRE FIGHTING - Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Extinguish using agents indicated; do not use water directly on material.

MSDS P-109 (Rev. 12)

If large amounts of combustible materials are involved, use water spray or fog in flooding amounts. Use water spray to absorb corrosive vapors. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing corrosive vapors; keep upwind.

HEALTH HAZARD DATA

NOTE: The acute health effects described below are those which could potentially occur for the finished product. They are based on the toxicology information available for the finished product and/or each hazardous ingredient, and are consistent with the product type and the likelihood of a specific route of exposure. Known chronic health effects related to exposure to a specific ingredient are indicated.

ACUTE HEALTH EFFECTS:

- INHALATION:** Vapors may cause severe irritation with possible corrosive burns of the mucous membranes of the upper respiratory tract, conjunctivitis, nasal secretions, sneezing, a burning or tickling sensation in the nose and throat and retrosternal region, followed by cough, respiratory distress, tracheobronchitis, chemical pneumonitis and possible spasm of the vocal cords, and pulmonary edema.
- SKIN CONTACT:** May cause severe irritation, pain and possibly chemical burns.
- EYE CONTACT:** May cause burns with impairment or permanent loss of vision. Symptoms may include severe irritation, pain, tearing, blurred vision.
- INGESTION:** May cause mucous membrane and circumoral burns, excess drooling, difficulty in swallowing, pain upon swallowing, vomiting of blood, abdominal pain, perforation of the esophagus and gastrointestinal tract, necrosis of the stomach, respiratory distress (secondary to epiglottal swelling), shock, renal failure, and death.

CHRONIC HEALTH EFFECTS:

No chronic health effects are expected from the intended use of these chemicals or from foreseeable handling of them in the workplace. Nonetheless, the following effects have been reported for a component, sulfuric acid.

Sulfuric Acid: Repeated exposure to the mist may cause inflammation of the upper respiratory tract, chronic bronchitis and etching of the dental enamel. Repeated excessive exposure over long periods of time have resulted in bronchitic symptoms, rhinorrhea, frequent respiratory tract infections, emphysema, stomatitis and digestive disturbances. The NTP lists strong inorganic acid mists containing sulfuric acid as "known human carcinogens." Occupational exposures to strong inorganic acid mists containing sulfuric acid are specifically associated with laryngeal and lung cancers in humans.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE: Pre-existing skin conditions and respiratory illnesses (such as asthma).

EMERGENCY AND FIRST AID PROCEDURES

- INHALATION:** Immediately remove from exposure area to fresh air. Keep affected person warm and at rest. Treat symptomatically and supportively. Contact physician or local poison control center. If breathing has stopped, give artificial respiration, and get medical attention immediately.
- SKIN CONTACT:** Immediately remove contaminated clothing and shoes. Immediately rinse affected area with plenty of water until no evidence of material remains. Get medical attention if irritation persists.
- EYE CONTACT:** Immediately rinse eyes with plenty of water, occasionally lifting upper and lower lids, until no evidence of material remains (at least 15-20 minutes). Get medical attention immediately.
- INGESTION:** Immediately get medical attention. Treat symptomatically and supportively. Maintain airway and respiration. DO NOT induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration. Dilution by rinsing the mouth and giving water or milk to drink is generally recommended. If unconscious, the victim should not be given anything to drink.

REACTIVITY

REACTIVITY - Stable under normal temperatures and pressures.

INCOMPATIBILITIES: Strong oxidizers, metals, acids, carbonates, sulfides, cyanides, water.

DECOMPOSITION - Thermal decomposition products may include toxic oxides of sulfur and carbon, and hydrogen sulfide.

POLYMERIZATION - Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

STORAGE AND DISPOSAL

CAUTION: Corrosive material. Store away from incompatible substances. Do not store in carbon steel or aluminum containers. Observe all federal, state and local regulations when storing or disposing of this substance.

CONDITIONS TO AVOID

Avoid contact with incompatible materials and excessive heat.

SPILL AND LEAK PROCEDURES

OCCUPATIONAL SPILL - Do not touch spilled material. Stop leak if you can do it without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry.

OCCUPATIONAL PROTECTIVE EQUIPMENT

VENTILATION - Provide local exhaust ventilation to meet permissible exposure limits, where generation of vapors or mists is likely to occur.

RESPIRATOR - Air contamination monitoring should be carried out where generation of vapors or mists is likely to occur to assure that the employees are not exposed to harmful concentrations above the permissible exposure limits. If respiratory protection is required, it must be based on the contamination levels found in the workplace, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

FOR FIRE FIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS -

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

CLOTHING - Chemical-resistant clothing (impervious) is required to prevent any possibility of skin contact with this product.

GLOVES - Chemical-resistant gloves are required to prevent any possibility of skin contact with this product.

EYE PROTECTION - Splash-proof safety goggles and a faceshield are required to be worn to prevent any possibility of eye contact with this product.

EMERGENCY WASH FACILITIES - Where there is any possibility that an employee's eyes and/or skin may be exposed to this substance, the employer should provide an eye wash fountain and quick drench shower within the immediate work area for emergency use.

REGULATORY INFORMATION

DOT HAZARD CLASS: 8 - Corrosive material.

DOT SHIPPING NAME: RQ, Alkyl sulfonic acids, liquid, 8, UN2586, PG III, Corrosive

EPA HAZARDOUS WASTE #: D002.

EPA - SARA TITLE III SECTION 313: Toxic chemical - Yes: sulfuric acid, aerosol forms only.

EPA - SARA TITLE III SECTIONS 302: 1000 lbs. TPQ. (sulfuric acid).

EPA - SARA TITLE III SECTIONS 304: 1000 lbs. RQ. (sulfuric acid).

TSCA: All components of this product are listed or are exempted or excluded from listing on the U.S. Toxic Substances Control Act (TSCA) chemical substance inventory.

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, The Dial Corporation makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, The Dial Corporation will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representations, or warranties, either expressed or implied of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information set forth herein or to the product to which the information refers.

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