Olin

MATERIAL SAFETY DATA

OCEAN NETWORK EMERGENCY PHONE 1-800-OLIN 911

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD,29 CFR 1910.1200.THIS PRODUCT MAY BE CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD.(REFER TO THE OSHA CLASSIFICATION IN SEC.I.)THIS INFORMATION IS REQUIRED TO BE DISCLOSED FOR SAFETY IN THE WORKPLACE.THE EXPOSURE TO THE COMMUNITY,IF ANY,IS QUITE DIFFERENT.

I. PRODUCT IDENTIFICATION

REVISION NO : 2
REVISION DATE : 10/25/96
PRODUCT CODE : HPE897106
FILE NUMBER : HPE00551.0178
PRODUCT NAME: OCG 945

developer

SYNONYMS: None
CHEMICAL FAMILY: Organic salt
FORMULA: Not Applicable/Mixture
USE DESCRIPTION: Positive resist developer
OSHA HAZARD CLASSIFICATION: Corrosive to eyes; skin irritant and eye hazard; lung toxin

II. COMPONENT DATA

PRODUCT COMPOSITION

CAS or CHEMICAL NAME: Tetramethyl ammonium hydroxide
CAS NUMBER: 75-59-2
PERCENTAGE RANGE: <1-10
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: None Established

CAS or CHEMICAL NAME: Water
CAS NUMBER: 7732-18-5
PERCENTAGE RANGE: 90-99%
HAZARDOUS PER 29 CFR 1910.1200: No
EXPOSURE STANDARDS: None Established

III. PRECAUTIONS FOR SAFE HANDLING AND STORAGE

MAY BE HARMFUL IF SWALLOWED. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER. AVOID BREATHING MIST.
STORAGE CONDITIONS: STORE IN A COOL, DRY, WELL VENTILATED PLACE.

VI. FIRE AND EXPLOSION HAZARD INFORMATION

FLAMMABILITY DATA:
- FLAMMABLE: No
- COMBUSTIBLE: No
- PYROPHORIC: No
- FLASH POINT: Not Flammable
- AUTOIGNITION TEMPERATURE: Not applicable
- FLAMMABLE LIMITS AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE (PERCENT VOLUME IN AIR): LEL - No Data UEL - No Data

NFPA RATINGS: Not Established

HMIS RATINGS:
- Health: 3
- Flammability: 0
- Reactivity: 1

EXTINGUISHING MEDIA: Not Applicable - Choose extinguishing media suitable for surrounding materials.

FIRE FIGHTING TECHNIQUES AND COMMENTS: This product would not be expected to burn unless all the water is boiled away. The remaining organic compounds may be ignitable. Use water to cool containers exposed to fire. See Section XI for protective equipment for fire fighting.

VII. REACTIVITY INFORMATION

CONDITIONS UNDER WHICH THIS PRODUCT MAY BE UNSTABLE:
- TEMPERATURES ABOVE: 40 Deg.C (104 Deg.F) Activity of product could be affected.
- MECHANICAL SHOCK OR IMPACT: No
- ELECTRICAL (STATIC) DISCHARGE: No
- HAZARDOUS POLYMERIZATION: Will not occur
- INCOMPATIBLE MATERIALS: Strong acids, strong oxidizers
- HAZARDOUS DECOMPOSITION PRODUCTS: Methanol, trimethylamine, ammonia
- OTHER CONDITIONS TO AVOID: Excessive heat

SUMMARY OF REACTIVITY:
- OXIDIZER: No
- PYROPHORIC: No
- ORGANIC PEROXIDE: No
- WATER REACTIVE: No

CHRONIC:
Chronic inhalation may cause impairment of lung function and permanent lung damage.

SKIN
ACUTE:
Dermal exposure would be expected to cause an irritation characterized by transient redness and swelling. This irritant effect would not be expected to result in permanent damage.

CHRONIC:
There are no known or reported effects from chronic exposure except for effects similar to those experienced from single exposure.

EYE
Severe irritation and/or burns can occur following exposure. Contact may cause impairment of vision and corneal damage.

INGESTION
ACUTE:
Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding and/or tissue ulceration. Ingestion causes severe damage to the gastrointestinal tract with the potential to cause perforation.
CHRONIC:
There are no known or reported effects from chronic exposure. Chronic ingestion of significant amounts of this product is unlikely because of its acute corrosive action.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Asthma and other respiratory diseases

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY
None known or reported

ANIMAL TOXICOLOGY
ACUTE TOXICITY:
Inhalation LC 50: No data
Dermal LD 50: No data
Oral LD 50: No data
Irritation: Causes burns to eyes and irritation to skin

SPILL MITIGATION PROCEDURES:
Evacuation procedures must be placed into effect. Evacuate all non-essential personnel. Hazardous concentrations in air may be found in local spill area and immediately downwind. Utilize emergency response personal protective equipment prior to the start of any response. Stop source of spill as soon as possible and notify appropriate personnel.

AIR RELEASE: Vapors may be suppressed by the use of water fog or spray. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste.

WATER RELEASE: This material is heavier than and soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. If unable to divert, create an overflow dam to contain material. Continue to handle as described in land spill.

LAND SPILL: Create a dike or trench to contain materials. Spill materials may be absorbed using sand, clay, earth or commercial absorbent. Do not place spill materials back in their original containers. Containerize and label all spill materials properly. Decontaminate all clothing and the spill area using soap solution and flush with large amounts of water.

SPILL RESIDUES:
Dispose of per guidelines under Section XII, WASTE DISPOSAL.

PERSONAL PROTECTION FOR EMERGENCY SPILL AND FIRE-FIGHTING SITUATIONS:
In case of fire, use normal fire fighting equipment plus a self-contained breathing apparatus (SCBA).

XII. WASTE DISPOSAL

If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D002.

If this product becomes a waste, it will be a hazardous waste which is subject to the Land Disposal Restrictions under 40 CFR 268 and must be managed accordingly.

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THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. OLIN BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MATERIAL SAFETY DATA SHEET IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT OLIN AT THE PHONE NUMBER LISTED BELOW TO MAKE CERTAIN THAT THIS SHEET IS CURRENT.

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