

MATERIAL SAFETY DATA SHEET

SODIUM HYDROXIDE

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This information valid through July 31, 1996

SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: 71688
NAME: SODIUM HYDROXIDE

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 1310-73-2
EC NO: 215-185-5

SYNONYMS

CAUSTIC SODA * HYDROXYDE DE SODIUM (FRENCH) * LEWIS-RED DEVIL LYE *
LYE * NATRIUMHYDROXID (GERMAN) * NATRIUMHYDROXYDE (DUTCH) * SODA LYE *
SODIO(IDROSSIDO DI) (ITALIAN) * SODIUM HYDRATE * SODIUM HYDROXIDE
(ACGIH:OSHA) * SODIUM HYDROXIDE, SOLID (UN1823) (DOT) * SODIUM
HYDROXIDE, SOLUTION (UN1824) (DOT) * SODIUM(HYDROXYDE DE) (FRENCH) *
UN1823 (DOT) * UN1824 (DOT) * WHITE CAUSTIC *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

LABEL PRECAUTIONARY STATEMENTS

CORROSIVE
CAUSES BURNS.
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED
CLOTHING AND SHOES.
ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS
WITH FINGERS.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
WASH CONTAMINATED CLOTHING BEFORE REUSE.
DISCARD CONTAMINATED SHOES.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA.
USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.
DO NOT USE WATER.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.
UNUSUAL FIRE AND EXPLOSIONS HAZARDS
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

ADDITIONAL INFORMATION

CONTACT WITH ALUMINUM, TIN AND ZINC LIBERATES HYDROGEN GAS. CONTACT
WITH NITROMETHANE AND OTHER SIMILAR NITRO COMPOUNDS CAUSES FORMATION
OF SHOCK-SENSITIVE SALTS.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.

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SODIUM HYDROXIDE

SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUME HOOD.
FACESHIELD (8-INCH MINIMUM).
DO NOT BREATHE DUST.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
READILY ABSORBED THROUGH SKIN.
WASH THOROUGHLY AFTER HANDLING.
TOXIC.
CORROSIVE.
KEEP TIGHTLY CLOSED.
EXTREMELY HYGROSCOPIC
AIR SENSITIVE
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR

SOLID.

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS
STRONG ACIDS
ORGANIC MATERIALS
CHLORINATED SOLVENTS
ABSORBS CO₂ FROM AIR.
PROTECT FROM MOISTURE.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES
AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
CAUSES SEVERE BURNS.
INHALATION MAY BE FATAL AS A RESULT OF SPASM, INFLAMMATION AND EDEMA
OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING,
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND
VOMITING.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS #: WB4900000

SODIUM HYDROXIDE

IRRITATION DATA

EYE-MKY 1 $\frac{1}{2}$ /24H SEV
SKN-RBT 500 MG/24H SEV
EYE-RBT 400 UG MLD
EYE-RBT 1 $\frac{1}{2}$ SEV
EYE-RBT 50 UG/24H SEV
EYE-RBT 1 MG/24H SEV
EYE-RBT 1 MG/30S RINSE SEV

TXAPA9 6,701,64
28ZPAK -,7,72
OYYAA2 26,627,83
AJOPAA 29,1363,46
28ZPAK -,7,72
TXAPA9 6,701,64
TXCYAC 23,281,82

TOXICITY DATA

IPR-MUS LD50:40 MG/KG
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
COMPLETE INFORMATION.

COREAF 257,791,63

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -

FOR SMALL QUANTITIES: CAUTIOUSLY ADD TO A LARGE STIRRED EXCESS OF
WATER. ADJUST THE PH TO NEUTRAL, SEPARATE ANY INSOLUBLE SOLIDS OR
LIQUIDS AND PACKAGE THEM FOR HAZARDOUS-WASTE DISPOSAL. FLUSH THE
AQUEOUS SOLUTION DOWN THE DRAIN WITH PLENTY OF WATER. THE HYDROLYSIS
AND NEUTRALIZATION REACTIONS MAY GENERATE HEAT AND FUMES WHICH CAN BE
CONTROLLED BY THE RATE OF ADDITION.

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -

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CONTACT FLUKA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -

EUROPEAN INFORMATION

EC INDEX NO: 011-002-01-3

CORROSIVE

R 34

CAUSES BURNS.

R 20/21/22

HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

S 26

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

S 27

TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.

S 36/37/39

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-CL 2 MG/M3

85INA8 6,1416,91

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEREAC 54,7740,89

MSHA STANDARD:AIR-CL 2 MG/M3

DTLVS* 3,233,71

OSHA PEL (GEN INDU):8H TWA 2 MG/M3

CFRGR 29,1910.1000,94

OSHA PEL (CONSTRUC):8H TWA 2 MG/M3

CFRGR 29,1926.55,94

OSHA PEL (SHIPYARD):8H TWA 2 MG/M3

CFRGR 29,1915.1000,93

OSHA PEL (FED CONT):8H TWA 2 MG/M3

CFRGR 41,50-204.50,94

OEL-AUSTRALIA:TWA 2 MG/M3 JAN93

OEL-BELGIUM:STEL 2 MG/M3 JAN93

OEL-DENMARK:TWA 2 MG/M3 JAN93

OEL-FINLAND:TWA 2 MG/M3 JAN93

OEL-FRANCE:TWA 2 MG/M3 JAN93

OEL-GERMANY:TWA 2 MG/M3 JAN93

OEL-JAPAN:STEL 2 MG/M3 JAN93

OEL-THE NETHERLANDS:TWA 2 MG/M3 JAN93

OEL-THE PHILIPPINES:TWA 2 MG/M3 JAN93

OEL-SWEDEN:TWA 2 MG/M3 JAN93

OEL-SWITZERLAND:TWA 2 MG/M3;STEL 4 MG/M3 JAN93

OEL-THAILAND:TWA 2 MG/M3 JAN93

OEL-TURKEY:TWA 2 MG/M3 JAN93

OEL-UNITED KINGDOM:TWA 2 MG/M3;STEL 2 MG/M3 JAN93

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NIOSH REL TO SODIUM HYDROXIDE-AIR:CL 2 MG/M3/15M

NIOSH* DHHS #92-100,92

NOHS 1974: HZD 69070; NIS 359; TNF 112525; NOS 192; TNE 1122583

NOES 1983: HZD X3782; NIS 167; TNF 21989; NOS 120; TNE 370582; TFE

137156

NOES 1983: HZD 69070; NIS 426; TNF 133757; NOS 246; TNE 2819743; TFE

995960

EPA GENETOX PROGRAM 1988, NEGATIVE: CELL TRANSFORM.-SA7/SHE

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, OCTOBER 1995

NIOSH ANALYTICAL METHOD, 1994: ALKALINE DUSTS, 7401

SECTION 16. - - - - - OTHER INFORMATION - - - - -

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