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M A T E R I A L S A F E T Y D A T A S H E E T

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

CATALOG #: S0399

NAME: SODIUM HYDROXIDE BEADS, 20-40 MESH

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

CAS #: 1310-73-2

MF: HNAO

EC NO: 215-185-5

SYNONYMS

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

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

LABEL PRECAUTIONARY STATEMENTS

CORROSIVE

CAUSES BURNS.

EXOTHERMIC IN CONTACT WITH WATER.

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

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

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

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

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

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

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

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
EVACUATE AREA.
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.

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

SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUME HOOD.
WASH CONTAMINATED CLOTHING BEFORE REUSE.
DISCARD CONTAMINATED SHOES.

WASH THOROUGHLY AFTER HANDLING.

DO NOT BREATHE DUST.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

NIOSH/MSHA-APPROVED RESPIRATOR.

COMPATIBLE CHEMICAL-RESISTANT GLOVES.

CHEMICAL SAFETY GOGGLES.

KEEP TIGHTLY CLOSED.

STORE IN A COOL DRY PLACE.

DO NOT ALLOW CONTACT WITH WATER.

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

APPEARANCE AND ODOR

SOLID.

PHYSICAL PROPERTIES

BOILING POINT: 1,390 C

MELTING POINT: 318 C

VAPOR PRESSURE: < 18 MMHG @ 20 C

SPECIFIC GRAVITY: 2.13

VAPOR DENSITY: > 1 G/L

PH: 13 - 14

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

STABILITY

STABLE.

CONDITIONS TO AVOID

ABSORBS CO_2 FROM AIR.

HEAT OF SOLUTION IS VERY HIGH, AND WITH LIMITED AMOUNTS OF WATER, VIOLENT BOILING MAY OCCUR.

NEVER ADD WATER TO THIS MATERIAL, ALWAYS ADD THIS MATERIAL TO WATER.

INCOMPATIBILITIES

DO NOT ALLOW WATER TO ENTER CONTAINER BECAUSE OF VIOLENT REACTION.

STRONG OXIDIZING AGENTS

STRONG ACIDS

ORGANIC MATERIALS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

SODIUM/SODIUM OXIDES

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

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

ACUTE EFFECTS

CAUSES BURNS.

MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.

MATERIAL IS EXTREMELY DESTRUCTIVE TO THE TISSUE OF THE MUCOUS MEMBRANES

AND UPPER RESPIRATORY TRACT.

MAY BE HARMFUL IF INHALED.

MAY BE HARMFUL IF SWALLOWED.

INHALATION MAY RESULT IN 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.

MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES AND SKIN.

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%/24H SEV	TXAPA9 6,701,1964
SKN-RBT 500 MG/24H SEV	28ZPAK -,7,1972
EYE-RBT 400 UG MLD	OYYAA2 26,627,1983
EYE-RBT 1% SEV	AJOPAA 29,1363,1946
EYE-RBT 50 UG/24H SEV	28ZPAK -,7,1972
EYE-RBT 1 MG/24H SEV	TXAPA9 6,701,1964
EYE-RBT 1 MG/30S RINSE SEV	TXCYAC 23,281,1982

TOXICITY DATA

IPR-MUS LD50:40 MG/KG	COREAF 257,791,1963

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

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

DATA NOT YET AVAILABLE.

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

CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF

THIS MATERIAL.

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

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

CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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

EUROPEAN INFORMATION

EC INDEX NO: 011-002-01-3

CORROSIVE

R 35

CAUSES SEVERE BURNS.

S 26

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

S 37/39

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).

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-CL 2 MG/M3 DTLVS* TLV/BEI,1999

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION FEREAC 54,7740,1989

MSHA STANDARD:AIR-CL 2 MG/M3 DTLVS* 3,233,1971

OSHA PEL (GEN INDU):8H TWA 2 MG/M3 CFRGBR 29,1910.1000,1994

OSHA PEL (CONSTRUC):8H TWA 2 MG/M3 CFRGBR 29,1926.55,1994

OSHA PEL (SHIPYARD):8H TWA 2 MG/M3 CFRGBR 29,1915.1000,1993

OSHA PEL (FED CONT):8H TWA 2 MG/M3 CFRGBR 41,50-204.50,1994

OEL-AUSTRALIA: TWA 2 MG/M3, JAN1993

OEL-AUSTRIA: MAK 2 MG/M3, JAN1999

OEL-BELGIUM: STEL 2 MG/M3, JAN1993

OEL-DENMARK: TWA 2 MG/M3, JAN1999

OEL-FINLAND: TWA 2 MG/M3, JAN1999

OEL-FRANCE: VME 2 MG/M3, JAN1999

OEL-GERMANY: MAK 2 MG/M3, JAN1999

OEL-JAPAN: OEL(C) 2 MG/M3, JAN1999

OEL-THE NETHERLANDS: MAC-TGG 2 MG/M3, JAN1999

OEL-NORWAY: TWA 2 MG/M3, JAN1999

OEL-THE PHILIPPINES: TWA 2 MG/M3, JAN1993

OEL-POLAND: MAC(TWA) 0.5 MG/M3, MAC(STEL) 1 MG/M3, JAN1999

OEL-SWEDEN: TGV 2 MG/M3, JAN1999

OEL-SWITZERLAND: MAK-W 2 MG/M3, KZG-W 4 MG/M3, JAN1999

OEL-THAILAND: TWA 2 MG/M3, JAN1993

OEL-TURKEY: TWA 2 MG/M3, JAN1993

OEL-UNITED KINGDOM: STEL 2 MG/M3, SEP2000

OEL IN ARGENTINA, 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 #92-100,1992

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 SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001

NIOSH ANALYTICAL METHOD, 1994: ALKALINE DUSTS, 7401

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

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