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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 #: 237051
 NAME: ALUMINUM CHLORIDE, 99%

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

CAS #: 7446-70-0
 MF: ALCL3
 EC NO: 231-208-1

SYNONYMS

ALLUMINIO (CLORURO DI) (ITALIAN) * ALUMINIUMCHLORID (GERMAN) *
 ALUMINUM CHLORIDE (1:3) * ALUMINUM TRICHLORIDE * CHLORURE D'ALUMINIUM
 (FRENCH) * PEARSALL * TRICHLOROALUMINUM *

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

LABEL PRECAUTIONARY STATEMENTS

CORROSIVE
 CAUSES BURNS.
 REACTS VIOLENTLY WITH WATER.
 POSSIBLE SENSITIZER.
 TARGET ORGAN(S):
 LUNGS
 REACTS VIOLENTLY WITH WATER.
 DO NOT BREATHE DUST.
 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).
 MAY DEVELOP PRESSURE.
 AUTOIGNITION TEMPERATURE:
 VENT PERIODICALLY.

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.
 WATER HYDROLYZES MATERIAL LIBERATING ACIDIC GAS WHICH IN CONTACT
 WITH METAL SURFACES CAN GENERATE FLAMMABLE AND/OR EXPLOSIVE
 HYDROGEN GAS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -
 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.
 EVACUATE AREA.

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
 WHITE TO PALE-YELLOW POWDER
 PHYSICAL PROPERTIES
 MELTING POINT: 190 C
 VAPOR PRESSURE: 1MM 100 C
 SOLUBILITY:
 WATER -Z1076
 SPECIFIC GRAVITY: 2.440
 PH: 2,4

SECTION 10. - - - - - -STABILITY AND REACTIVITY - - - - -
 STABILITY
 STABLE.
 INCOMPATIBILITIES
 DO NOT ALLOW WATER TO ENTER CONTAINER BECAUSE OF VIOLENT REACTION.
 STRONG OXIDIZING AGENTS
 ALCOHOLS
 HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
 ALUMINUM OXIDE
 HYDROGEN CHLORIDE GAS
 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.
 MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES
 AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
 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.
 PROLONGED EXPOSURE CAN CAUSE:
 DAMAGE TO THE LUNGS
 TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
 TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
 PROLONGED OR REPEATED EXPOSURE MAY CAUSE ALLERGIC REACTIONS IN CERTAIN
 SENSITIVE INDIVIDUALS.

CHRONIC EFFECTS

TARGET ORGAN(S):
DAMAGE TO THE LUNGS

RTECS #: BD0525000

ALUMINUM CHLORIDE

TOXICITY DATA

ORL-RAT LD50:3450 MG/KG 36(1-4),10,1989	SRTCAC
UNR-RAT LD50:315 MG/KG	GISAAA 43(4),12,1978
ORL-MUS LD50:1130 MG/KG	GISAAA 30(4),16,1965
UNR-MUS LD50:390 MG/KG	GISAAA 43(4),12,1978
SKN-RBT LD50:>2 GM/KG	EPASR* 8EHQ-0191-1109

TARGET ORGAN DATA

MATERNAL EFFECTS (OTHER EFFECTS ON FEMALE)
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)
EFFECTS ON NEWBORN (GROWTH STATISTICS)
EFFECTS ON NEWBORN (BEHAVIORAL)
EFFECTS ON NEWBORN (DELAYED EFFECTS)

ADDITIONAL INFORMATION

ORL-RAT LD50:380 MG/KG
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.

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A
CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

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

CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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

EUROPEAN INFORMATION

EC INDEX NO: 013-003-00-7

CORROSIVE

R 34

CAUSES BURNS.

S 7/8

KEEP CONTAINER TIGHTLY CLOSED AND DRY.

S 28

AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF SOAP SUDS.

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-TWA 2 MG(AL)/M3

DTLVS* TLV/BEI,1999

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEREAC 54,7740,1989

OEL-AUSTRALIA: TWA 2 MG(AL)/M3, JAN1993

OEL-BELGIUM: TWA 2 MG(AL)/M3, JAN1993

OEL-DENMARK: TWA 2 MG(AL)/M3, JAN1999

OEL-FRANCE: VME 2 MG(AL)/M3, JAN1999

OEL-NORWAY: TWA 2 MG(AL)/M3, JAN1999

OEL-RUSSIA: TWA 2 MG(AL)/M3, JAN1993

OEL-SWEDEN: NGV 2 MG(AL)/M3, JAN1999

OEL-SWITZERLAND: MAK-W 2 MG(AL)/M3, JAN1999

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

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

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NOHS 1974: HZD 04605; NIS 29; TNF 3476; NOS 34; TNE 17152

NOES 1983: HZD 04605; NIS 32; TNF 2230; NOS 68; TNE 49913; TFE 17460

EPA GENETOX PROGRAM 1988, POSITIVE: IN VIVO CYTOGENETICS-NONHUMAN BONE
MARROW

EPA GENETOX PROGRAM 1988, NEGATIVE: CELL TRANSFORM.-SA7/SHE; B SUBTILIS
REC ASSAY

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

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

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

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