

Valid 11/2002 - 01/2003

Sigma Chemical Co.
P.O. Box 14508
St. Louis, MO 63178 USA
Phone: 314-771-5765

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 #: C1896
NAME: CHROMIUM(III) CHLORIDE HEXAHYDRATE

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -
CAS #: 10060-12-5
MF: CL3CR

SYNONYMS
CHLORID CHROMITY HEXAHYDRAT (CZECH) * CHROMIC CHLORIDE HEXAHYDRATE *
CHROMIUM CHLORIDE, HEXAHYDRATE (8CI,9CI) * CHROMIUM SESQUICHLORIDE *
CHROMIUM TRICHLORIDE HEXAHYDRATE * HEXAAQUACHROMIUM CHLORIDE *
HEXAAQUACHROMIUM (III) CHLORIDE *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -
LABEL PRECAUTIONARY STATEMENTS
HARMFUL
HARMFUL IF SWALLOWED.
MAY CAUSE SENSITIZATION BY SKIN CONTACT.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.
WEAR SUITABLE PROTECTIVE CLOTHING.
HYGROSCOPIC

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
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
NONCOMBUSTIBLE.
USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.
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- - - - -
WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
AVOID RAISING DUST.
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.

MECHANICAL EXHAUST REQUIRED.
DO NOT BREATHE DUST.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
NIOSH/MSHA-APPROVED RESPIRATOR.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
CHEMICAL SAFETY GOGGLES.
WASH THOROUGHLY AFTER HANDLING.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.
STORE UNDER NITROGEN.

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

SOLID.
PHYSICAL PROPERTIES

MELTING POINT: 83 C
SPECIFIC GRAVITY: 1,76

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

STABLE.
INCOMPATIBILITIES

HYGROSCOPIC
OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
HYDROGEN CHLORIDE GAS
HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -
ACUTE EFFECTS

CAUSES SKIN IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
CAUSES EYE IRRITATION.
MAY BE HARMFUL IF INHALED.
MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
HARMFUL IF SWALLOWED.
MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES
AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING,
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND
VOMITING.
INHALATION MAY RESULT IN SPASM, INFLAMMATION AND EDEMA OF THE
LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA.
MAY CAUSE ALLERGIC SKIN REACTION.

CHRONIC EFFECTS

THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS NOT CLASSIFIABLE AS
TO ITS CARCINOGENICITY BASED ON ITS IARC, ACGIH, NTP OR EPA
CLASSIFICATION.

LABORATORY EXPERIMENTS HAVE SHOWN MUTAGENIC EFFECTS.

RTECS #: GB5450000

CHROMIUM(III) CHLORIDE, HEXAHYDRATE (1:3:6)

TOXICITY DATA

ORL-RAT LD50:1790 MG/KG
IPR-MUS LD50:285 MG/KG
MARJV# 29MAR1977
TXAPA9 63,461,1982

TARGET ORGAN DATA

EFFECTS ON EMBRYO OR FETUS (CYTOLOGICAL CHANGES)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CENTRAL NERVOUS SYSTEM)
TUMORIGENIC EFFECTS (OTHER REPRODUCTIVE SYSTEM TUMORS)
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 SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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

EUROPEAN INFORMATION

CAUTION: SUBSTANCE NOT YET FULLY TESTED.

HARMFUL

R 22

HARMFUL IF SWALLOWED.

R 43

MAY CAUSE SENSITIZATION BY SKIN CONTACT.

R 36/37/38

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

S 26

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

S 36

WEAR SUITABLE PROTECTIVE CLOTHING.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-TWA 0.5 MG(CR)/M3

DTLVS* TLV/BEI,1999

ACGIH TLV-NOT CLASSIFIABLE AS A HUMAN CARCINOGEN DTLVS* TLV/BEI,1999

MSHA STANDARD-AIR:TWA 1 MG(CR)/M3

DTLVS* 3,35,1971

OSHA PEL (GEN INDU):8H TWA 0.5 MG(CR)/M3

CFRGBR 29,1910.1000,1994

OSHA PEL (CONSTRUC):8H TWA 0.5 MG(CR)/M3

CFRGBR 29,1926.55,1994

OSHA PEL (SHIPYARD):8H TWA 0.5 MG(CR)/M3

CFRGBR 29,1915.1000,1993

OSHA PEL (FED CONT):8H TWA 0.5 MG(CR)/M3

CFRGBR 41,50-204.50,1994

OEL-AUSTRIA: SUSPECTED CARCINOGEN, JAN1999

OEL-DENMARK: TWA 0.5 MG(CR)/M3, JAN1999

OEL-JAPAN: OEL 0.5 MG(CR)/M3, JAN1999

OEL-THE NETHERLANDS: MAC-TGG 0.5 MG(CR)/M3, MAC-K 1 MG(CR)/M3, JAN1999

OEL-NORWAY: TWA 0.5 MG(CR)/M3, JAN1999

OEL-POLAND: TWA 0.5 MG(CR)/M3, JAN1999

OEL-SWEDEN: TWA 0.5 MG(CR)/M3, JAN1999

OEL-SWITZERLAND: MAK-W 0.5 MG(CR)/M3, JAN1999

OEL-UNITED KINGDOM: TWA 0.5 MG(CR)/M3, SEP2000

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

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NOES 1983: HZD X9134; NIS 1; TNF 41; NOS 2; TNE 573; TFE 203

EPA GENETOX PROGRAM 1988, NEGATIVE: IN VIVO CYTOGENETICS-MAMMALIAN

OOCYTE

U.S. INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS - CHROMIUM COMPOUNDS.

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

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA, ALDRICH, FLUKA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.

COPYRIGHT 2001 SIGMA-ALDRICH CO.

LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY