



POST OFFICE BOX 14508
SAINT LOUIS, MISSOURI 63178, USA

FAX: USA/CANADA 1-800-325-5052 OUTSIDE USA/CANADA 314-771-5757
TELEX: 910-761-0593 or 434475 ANSWERBACK "SIG OK COLLECT"

TELEPHONE: USA/CANADA 1-800-325-3010
OUTSIDE USA/CANADA call COLLECT 314-771-5750

THE WORLD'S FOREMOST MANUFACTURER OF RESEARCH
BIOCHEMICALS AND DIAGNOSTIC REAGENTS

ATTN: SAFETY DIRECTOR
UNIV OF WISC-WHITEWATER
PURCHASING OFFICE
800 W MAIN ST
WHITEWATER WI 53190-1705

EMERGENCY PHONE 1-314-771-5765

DATE 06/04/96
CUST#: 2-097-94816
PO#: UNF-64287

M A T E R I A L S A F E T Y D A T A S H E E T PAGE 1

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: P3667
NAME: POTASSIUM FERRICYANIDE ACS REAGENT

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #: 13746-66-2
MF: C6FEK3N6
EC NO: 237-323-3

SYNONYMS
POTASSIUM FERRICYANATE \* POTASSIUM FERRICYANIDE \* POTASSIUM
FERROCYANIDE \* TRIPOTASSIUM HEXACYANOFERRATE \*

SECTION 3. HAZARDS IDENTIFICATION

LABEL PRECAUTIONARY STATEMENTS

HARMFUL
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
WEAR SUITABLE PROTECTIVE CLOTHING.

SECTION 4. FIRST-AID MEASURES

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF
WATER FOR AT LEAST 15 MINUTES.
IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS
AMOUNTS OF WATER.
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.

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

CONTINUED ON NEXT PAGE

BRANCH OFFICES AT:

Table with 6 columns listing branch offices for SIGMA-ALDRICH in various countries including Germany, Spain, Italy, Czech Republic, Belgium, Switzerland, Mexico, India, and Hungary.



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MATERIAL SAFETY DATA SHEET PAGE 2

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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.

SECTION 7. HANDLING AND STORAGE

REFER TO SECTION 8.

ADDITIONAL INFORMATION

A MIXTURE OF POTASSIUM FERRICYANIDE AND SODIUM NITRITE EXPLODES ON HEATING. MIXTURES OF POTASSIUM FERRICYANIDE AND CHROMIUM TRIOXIDE EXPLODE WHEN HEATED ABOVE 196 C. THE MIXTURE IGNITES VIOLENTLY WHEN GROUND WITH SILVER SAND. CONTACT OF POTASSIUM FERRICYANIDE WITH AMMONIA CAN BE EXPLOSIVE DUE TO RAPID OXIDATION OF THE AMMONIA.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL SAFETY GOGGLES.
RUBBER GLOVES.
NIOSH/MSHA-APPROVED RESPIRATOR IN NONVENTILATED AREAS AND/OR FOR EXPOSURE ABOVE THE ACGIH TLV.
SAFETY SHOWER AND EYE BATH.
MECHANICAL EXHAUST REQUIRED.
AVOID BREATHING DUST.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
WASH THOROUGHLY AFTER HANDLING.
HARMFUL SOLID.
KEEP TIGHTLY CLOSED.
LIGHT SENSITIVE
AVOID CONTACT WITH ACID.
STORE IN A COOL DRY PLACE.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR
ORANGE CRYSTALS

PHYSICAL PROPERTIES
SPECIFIC GRAVITY: 1.890

SECTION 10. STABILITY AND REACTIVITY

INCOMPATIBILITIES
STRONG ACIDS
STRONG OXIDIZING AGENTS
MAY DISCOLOR ON EXPOSURE TO LIGHT.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
CARBON MONOXIDE, CARBON DIOXIDE
NITROGEN OXIDES
HYDROGEN CYANIDE

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SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS
MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.
MAY CAUSE IRRITATION.
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS #: LJ8225000
FERRATE(3-), HEXACYANO-, TRIPOTASSIUM

TOXICITY DATA
ORL-MUS LD50:2970 MG/KG
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
COMPLETE INFORMATION.
GISAAA 51(4), 23, 86

SECTION 12. ECOLOGICAL INFORMATION

DATA NOT YET AVAILABLE.

SECTION 13. DISPOSAL CONSIDERATIONS

TREAT A DILUTE BASIC SOLUTION (PH 10-11) OF THE MATERIAL WITH A 50%
EXCESS OF COMMERCIAL LAUNDRY BLEACH. CONTROL THE TEMPERATURE BY THE
ADDITION RATE OF BLEACH AND ADJUST PH IF NECESSARY. LET STAND OVER-
NIGHT. CAUTIOUSLY ADJUST SOLUTION TO PH 7. VIGOROUS EVOLUTION OF GAS
MAY OCCUR. FILTER ANY SOLIDS FOR BURIAL IN A CHEMICAL LANDFILL. PRE-
CIPITATE ANY HEAVY METALS BY ADDITION OF SULFIDE AND ISOLATE FOR BUR-
IAL. ADDITIONAL EQUIVALENTS OF HYPOCHLORITE MAY BE NEEDED IF THE
METAL CAN BE OXIDIZED TO A HIGHER VALENCE STATE. FOR METAL CARBONYLS,
THE REACTION SHOULD BE CARRIED OUT UNDER NITROGEN.
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

HARMFUL
R 20/21/22
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
S 36
WEAR SUITABLE PROTECTIVE CLOTHING.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK
NOES 1974: HZD 81080; NIS 50; TNE 5391; NOS 41; TNE 27467

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NOES 1983: HZD 81080; NIS 55; TNF 3468; NOS 58; TNE 85385; TFE 20227  
EPA GENETOX PROGRAM 1988, NEGATIVE: B SUBTILIS REC ASSAY  
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

U.S. INFORMATION  
THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS -  
CYANIDE COMPOUNDS.

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

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO  
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WHITEWATER WI 53190

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SIGMA-ALDRICH 11100 St. Louis, MO 63198	SIGMA-ALDRICH S.r.l. Via Gallarate 154 20151 Milano Italia	SIGMA-ALDRICH PTY., LIMITED Unit 2, 10 Anella Ave. Castle Hill NSW 2154 Australia	SIGMA-ALDRICH CHEMICAL REPRESENTACOES LTDA Rua Sabara, 566 - Conj. 53 01239-010 Sao Paulo, SP Brasil	SIGMA CHEMICAL CO. LTD. Fancy Road, Poole Dorset BH17 7NH England	SIGMA-ALDRICH Kft Teréz ut. 39 1067 Budapest Hungary	SIGMA-ALDRICH 206 Samhan Campus Building 17-3 Yeido-dong Yungdeungpo-gu Seoul South Korea