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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	35766
NAME:	Potassium tetracyanoplatinate(II) hydrate
SYNONYMS:	Potassium platinum(II) cyanide hydrate
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA) 352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)

ACUTE TOXICITY, ORAL (CATEGORY 2), H300

ACUTE TOXICITY, INHALATION (CATEGORY 2), H330

ACUTE TOXICITY, DERMAL (CATEGORY 1), H310

SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 1), H400

LONG-TERM (CHRONIC) AQUATIC HAZARD (CATEGORY 1), H410

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS
PICTOGRAM**



SIGNAL WORD DANGER

HAZARD STATEMENT(S)

H300 + H310 + H330 FATAL IF SWALLOWED, IN CONTACT WITH SKIN OR IF INHALED.
H410 VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

PRECAUTIONARY STATEMENT(S)

P260 DO NOT BREATHE DUST/ FUME/ GAS/ MIST/ VAPOURS/ SPRAY.
P262 DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.
P264 WASH SKIN THOROUGHLY AFTER HANDLING.
P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.
P271 USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.
P273 AVOID RELEASE TO THE ENVIRONMENT.
P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING.
P284 WEAR RESPIRATORY PROTECTION.
P301 + P310 + P330 IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER/DOCTOR. RINSE MOUTH.
P302 + P350 + P310 IF ON SKIN: GENTLY WASH WITH PLENTY OF SOAP AND WATER. IMMEDIATELY CALL A POISON CENTER OR DOCTOR/ PHYSICIAN.
P304 + P340 + P310 IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING. IMMEDIATELY CALL A POISON CENTER/DOCTOR.
P362 TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE.
P391 COLLECT SPILLAGE.
P403 + P235 STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED.
P405 STORE LOCKED UP.
P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

**HAZARDS NOT
OTHERWISE
CLASSIFIED (HNOC)
OR NOT COVERED
BY GHS**

CONTACT WITH ACIDS LIBERATES VERY TOXIC GAS.

MF: $K_2Pt(CN)_4 \cdot xH_2O$
MW: 377.34
CAS-NO. 38245-27-1
PURITY: $\geq 98\%$

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Potassium tetracyanoplatinate(II) hydrate		
	ACUTE TOX. 2; ACUTE TOX. 1; AQUATIC ACUTE 1; AQUATIC CHRONIC 1; H300, H330, H310, H400, H410 M-FACTOR - AQUATIC ACUTE: 10 - AQUATIC CHRONIC: 10	$\leq 100\%$

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

SECTION 4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL ADVICE CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. MOVE OUT OF DANGEROUS AREA.

IF INHALED IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

IN CASE OF SKIN CONTACT WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A PHYSICIAN.

IN CASE OF EYE CONTACT FLUSH EYES WITH WATER AS A PRECAUTION.

IF SWALLOWED NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED NO DATA AVAILABLE

SECTION 5. FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA DRY POWDER DRY SAND

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE CARBON OXIDES, NITROGEN OXIDES (NOX), POTASSIUM OXIDES, HYDROGEN CYANIDE (HYDROCYANIC ACID) NOT COMBUSTIBLE.

ADVICE FOR FIREFIGHTERS WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY.

FURTHER INFORMATION NO DATA AVAILABLE

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES WEAR RESPIRATORY PROTECTION. AVOID DUST FORMATION. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. EVACUATE PERSONNEL TO SAFE AREAS. AVOID BREATHING DUST. FOR PERSONAL PROTECTION SEE SECTION 8.

ENVIRONMENTAL PRECAUTIONS PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP PICK UP AND ARRANGE DISPOSAL WITHOUT CREATING DUST. SWEEP UP AND SHOVEL. DO NOT FLUSH WITH WATER. KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

REFERENCE TO OTHER SECTIONS FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING AVOID CONTACT WITH SKIN AND EYES. AVOID FORMATION OF DUST AND AEROSOLS. FURTHER PROCESSING OF SOLID MATERIALS MAY RESULT IN THE FORMATION OF COMBUSTIBLE DUSTS. THE POTENTIAL FOR COMBUSTIBLE DUST FORMATION SHOULD BE TAKEN INTO CONSIDERATION BEFORE ADDITIONAL PROCESSING OCCURS. PROVIDE APPROPRIATE EXHAUST VENTILATION AT PLACES WHERE DUST IS FORMED. FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. NEVER ALLOW PRODUCT TO GET IN CONTACT WITH WATER DURING STORAGE. DO NOT STORE NEAR ACIDS.

Store at RT

SPECIFIC END USE(S) APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

COMPONENT	CAS-NO.	VALUE	CONTROL PARAMETERS	BASIS
Potassium tetracyanoplatinate(II) hydrate	38245-27-1	TWA	5 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
	REMARKS	CAS NUMBER VARIES WITH COMPOUND SKIN DESIGNATION		
		C	5 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		UPPER RESPIRATORY TRACT IRRITATION HEADACHE NAUSEA THYROID EFFECTS DANGER OF CUTANEOUS ABSORPTION VARIES		
		C	4.7 PPM 5 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS

		10 MINUTE CEILING VALUE		
		PEL	5 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SKIN		

EXPOSURE CONTROLS

APPROPRIATE ENGINEERING CONTROLS AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH HANDS BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

SKIN PROTECTION HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.

BODY PROTECTION COMPLETE SUIT PROTECTING AGAINST CHEMICALS, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

RESPIRATORY PROTECTION WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULLFACE PARTICLE RESPIRATOR TYPE N100 (US) OR TYPE P3 (EN 143) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

CONTROL OF ENVIRONMENTAL EXPOSURE PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

White to off-white powder

ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	
INITIAL BOILING POINT AND BOILING RANGE	
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	THE PRODUCT IS NOT FLAMMABLE.
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	
WATER SOLUBILITY	NO DATA AVAILABLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	NO DATA AVAILABLE
AUTO-IGNITION TEMPERATURE	NO DATA AVAILABLE
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NO DATA AVAILABLE
OTHER SAFETY INFORMATION	NO DATA AVAILABLE

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY	NO DATA AVAILABLE
CHEMICAL STABILITY	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
POSSIBILITY OF HAZARDOUS REACTIONS	NO DATA AVAILABLE
CONDITIONS TO AVOID	NO DATA AVAILABLE
INCOMPATIBLE MATERIALS	STRONG OXIDIZING AGENTS, STRONG ACIDS, STRONG BASES

**HAZARDOUS
DECOMPOSITION
PRODUCTS**

HAZARDOUS DECOMPOSITION PRODUCTS FORMED
UNDER FIRE CONDITIONS. - CARBON OXIDES,
NITROGEN OXIDES (NOX), POTASSIUM OXIDES,
HYDROGEN CYANIDE (HYDROCYANIC ACID)
OTHER DECOMPOSITION PRODUCTS - NO DATA
AVAILABLE
IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY

NO DATA AVAILABLE

INHALATION: NO DATA AVAILABLE

DERMAL: NO DATA AVAILABLE

NO DATA AVAILABLE

**SKIN
CORROSION/IRRITATION**

NO DATA AVAILABLE

**SERIOUS EYE
DAMAGE/EYE IRRITATION**

NO DATA AVAILABLE

**RESPIRATORY OR SKIN
SENSITISATION**

NO DATA AVAILABLE

**GERM CELL
MUTAGENICITY**

NO DATA AVAILABLE

CARCINOGENICITY

IARC:

NO COMPONENT OF THIS PRODUCT PRESENT AT
LEVELS GREATER THAN OR EQUAL TO 0.1% IS
IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED
HUMAN CARCINOGEN BY IARC.

NTP:

NO COMPONENT OF THIS PRODUCT PRESENT AT
LEVELS GREATER THAN OR EQUAL TO 0.1% IS
IDENTIFIED AS A KNOWN OR ANTICIPATED
CARCINOGEN BY NTP.

OSHA:

NO COMPONENT OF THIS PRODUCT PRESENT AT
LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON
OSHA S LIST OF REGULATED CARCINOGENS.

REPRODUCTIVE TOXICITY

NO DATA AVAILABLE

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	NO DATA AVAILABLE
ASPIRATION HAZARD	NO DATA AVAILABLE
ADDITIONAL INFORMATION	RTECS: NOT AVAILABLE TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY	NO DATA AVAILABLE
PERSISTENCE AND DEGRADABILITY	NO DATA AVAILABLE
BIOACCUMULATIVE POTENTIAL	NO DATA AVAILABLE
MOBILITY IN SOIL	NO DATA AVAILABLE
RESULTS OF PBT AND VPVB ASSESSMENT	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED
OTHER ADVERSE EFFECTS	AN ENVIRONMENTAL HAZARD CANNOT BE EXCLUDED IN THE EVENT OF UNPROFESSIONAL HANDLING OR DISPOSAL. VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT	OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. 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.
CONTAMINATED PACKAGING	DISPOSE OF AS UNUSED PRODUCT.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME:	CYANIDES, INORGANIC, SOLID, N.O.S. (Potassium tetracyanoplatinate(II) hydrate)
UN NUMBER:	1588
CLASS:	6.1
PACKING GROUP:	I
REPORTABLE QUANTITY (RQ):	
MARINE POLLUTANT:	YES
POISON INHALATION HAZARD:	NO

IMDG

PROPER SHIPPING NAME:	CYANIDES, INORGANIC, SOLID, N.O.S. (Potassium tetracyanoplatinate(II) hydrate)
UN NUMBER:	1588
CLASS:	6.1
PACKING GROUP:	I
EMS-NO:	F-A, S-A
MARINE POLLUTANT:	YES

IATA

PROPER SHIPPING NAME:	CYANIDES, INORGANIC, SOLID, N.O.S. (Potassium tetracyanoplatinate(II) hydrate)
UN NUMBER:	1588
CLASS:	6.1
PACKING GROUP:	I

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS	NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.
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SARA 313 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

SARA 311/312 HAZARDS ACUTE HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS
NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
Potassium tetracyanoplatinate(II) hydrate	38245-27-1	07/08/2015

NEW JERSEY RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
Potassium tetracyanoplatinate(II) hydrate	38245-27-1	07/08/2015

SECTION 16. OTHER INFORMATION

FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H300 + H310 + H330	FATAL IF SWALLOWED, IN CONTACT WITH SKIN OR IF INHALED.
H410	VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

MSDS LEGEND

MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS
CAS:	CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA:	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PEL:	PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV:	THRESHOLD LIMIT VALUE (ACGIH)

IMPORTANT:

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