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MSDS No: M00435

Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Sulfide 2 Reagent
Catalog Number: 181732

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SDS Number: M00435

Chemical Name: Not applicable

Chemical Formula: Not applicable

Chemical Family: Not applicable

Use of the substance/preparation: Determination of sulfides

CAS No.: Not applicable

Hazard: Experimental mutagen. Experimental teratogen. May cause allergic reaction. Causes asthma Causes damage to the nasal epithelia and skin Causes lung cancer

Safety Data Sheet written according to Regulation (EU) No. 1907/2006 (REACH):

Date of MSDS Preparation:

Day: 18

Month: February

Year: 2014

2. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: Clear, orange

Odor: None

EU Symbols: T - TOXIC

R PHRASES: R 45: May cause cancer. R 46: May cause heritable genetic damage.

Protective Equipment: X - See protective equipment, Section 8.

Potential Health Effects:

Eye Contact (EC): May cause irritation

Skin Contact (EC): May cause irritation May cause allergic reaction

Skin Absorption (EC): Will be absorbed through the skin. Effects similar to those of ingestion

Target Organs (SA E): None Reported

Ingestion (EC): May cause: abdominal pain vomiting dizziness thirst fever coma liver damage

Target Organs (Ing E): None Reported

Inhalation: May cause: respiratory tract irritation

Target Organs (Inh E): None Reported

Medical Conditions Aggravated: Allergies or sensitivity to chromates or chromic acid. Pre-existing: Skin conditions

Chronic Effects: Chromate and dichromate salts may cause ulceration and perforation of the nasal septum, severe liver damage, central nervous system effects, and lung cancer.

Cancer / Reproductive Toxicity Information:

An ingredient of this mixture is: IARC Group 1: Recognized Carcinogen

Hexavalent Chromium Compounds

Additional Cancer / Reproductive Toxicity Information: Contains: an experimental mutagen. an experimental teratogen.

Toxicologically Synergistic Products: None reported

3. COMPOSITION / INFORMATION ON INGREDIENTS

Demineralized Water

EEC Number: 2317912

CAS No.: 7732-18-5

Percent Range: > 99,0

Percent Range Units: weight / weight

Ingredient EEC Symbol: Not applicable

Ingredient R phrase(s): Not applicable

TLV: Not established

PEL: Not established

EU Occupational Exposure Limits: Not established

Potassium Dichromate

EEC Number: 2319066

CAS No.: 7778-50-9

Percent Range: 0,1 - 1,0

Percent Range Units: weight / weight

Ingredient EEC Symbol:

Ingredient R phrase(s):

TLV: 0,025 mg Cr(VI)/m³

PEL: 0,005 mg Cr(VI)/m³

EU Occupational Exposure Limits: 0,05 mg/mL (0.0235 ppm as Cr⁺⁶)

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with plenty of water. Call physician if irritation develops.

Ingestion (First Aid): Give large quantities of water. Induce vomiting using syrup of ipecac or by sticking finger down throat. Never give anything by mouth to an unconscious person. Call physician immediately.

Inhalation: None required.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.

Hazardous Combustion Products: This material will not burn.

Fire / Explosion Hazards: May react violently with: hydrazine hydroxylamine reducers

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Water. Use media appropriate to surrounding fire conditions

Extinguishing Media NOT To Be Used: Not applicable Not applicable

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear. Evacuate area and fight fire from a safe distance. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

Containment Technique: Releases of this material may contaminate the environment. Stop spilled material from being released to the environment.

Clean-up Technique: If permitted by regulation, Cover spilled material with an alkali, such as soda ash or sodium bicarbonate. Scoop up slurry into a large beaker. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Dispose of in accordance with local, state and federal regulations or laws. Otherwise, Dispose of material in government approved hazardous waste facility. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes skin Do not breathe mist or vapors. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Keep container tightly closed when not in use. Store in a cool, dry place. Protect from: light

Special Packaging Instructions: Not applicable

Use of the substance/preparation: Determination of sulfides

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Maintain general industrial hygiene practices when using this product. Maintain adequate ventilation to keep exposure levels below the published exposure limits for chemicals in this product. Refer to the OSHA Standard at 29CFR1910.1026 for Cr (VI) (See Federal Register 28 February 2006 Page 10100.)

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin / Hand Protection: disposable latex gloves In the EU, the selected gloves must satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it. lab coat

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin Do not breathe: mist/vapor Wash thoroughly after handling. Use with adequate ventilation.

TLV: Not established. 0,05 mg/m³ (as Cr⁺⁶)

PEL: Not established. 5 µg/m³ (Cr⁺⁶), 8 Hr TWA; Action Level is 2,5 µg/m³, 8 Hr TWA.

EU Occupational Exposure Limits: Not established. 0,05 mg/m³ (as Cr⁺⁶).

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, orange

Physical State: Liquid

Odor: None

pH: 4,2

Vapor Pressure: Not determined.

Vapor Density (air = 1): Not determined.

Boiling Point: ~ 100°C (~212°F)

Melting Point: Not applicable

Flash Point: Not determined.

Method: Not applicable

Autoignition Temperature: Not determined.

Flammability Limits:

Lower Explosion Limits: Not applicable

Upper Explosion Limits: Not applicable

Specific Gravity/ Relative Density (water = 1; air =1): 0,987

Evaporation Rate (water = 1): Not determined.

Volatile Organic Compounds Content: None.

Partition Coefficient (n-octanol / water): Not applicable

Solubility:

Water: Miscible.

Acid: Miscible.

Other: Not determined.
Metal Corrosivity:
Steel: Not determined.
Aluminum: Not determined.

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Conditions to Avoid: Extreme temperatures
Reactivity / Incompatibility: May react violently in contact with: hydrazine hydroxylamine reducers
Hazardous Decomposition: No hazardous decomposition products known.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD50: None reported.
LC50: None reported.
Dermal Toxicity Data: None reported.
Skin and Eye Irritation Data: None reported.
Mutation Data: None reported.
Reproductive Effects Data: None reported.

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Ingredient Toxicological Data: Potassium Dichromate: Oral rat LD₅₀ = 25 mg/kg; Oral human (child) LDLo = 26 mg/kg; Dermal rat LD50 = 1170 mg/kg; Mutation and Reproductive Effects data reported in RTECS.
An ingredient of this mixture is: IARC Group 1: Recognized Carcinogen
Hexavalent Chromium Compounds

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product. Mobility in soil: No data available
Ingredient Ecological Information: Potassium Dichromate: Lepomis macrochirus 96 hr LC50 = 0,131 mg/L; Daphnia magna 48 hr EC50 = 0,035 mg/L;

13. DISPOSAL CONSIDERATIONS

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. TRANSPORT INFORMATION

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

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ICAO Hazard Class: NA
ICAO Subsidiary Risk: NA
ICAO UN/ID Number: NA
ICAO Packing Group: NA

I.M.O.:

I.M.O. Proper Shipping Name: Not Currently Regulated

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I.M.O. Hazard Class: NA
I.M.O. Subsidiary Risk: NA
I.M.O. UN Number: NA
I.M.O. Packing Group: NA

A.D.R.:

A.D.R. Proper Shipping Name: Not Currently Regulated

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A.D.R Hazard Class: NA
A.D.R. Subsidiary Risk: NA
A.D.R. UN-Number:: NA
A.D.R. Packing Group: NA

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories:

EEC Inventory Status: All ingredients used to make this product are listed on EINECS / ELINCS.

EEC Number: Not applicable

EEC LABEL COPY:

EU Symbols: T - TOXIC

R PHRASES: R 45: May cause cancer. R 46: May cause heritable genetic damage.

S PHRASES: S 53: Avoid exposure - obtain special instructions before use. S 37: Wear suitable gloves. S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Ingredients: Potassium Dichromate;

16. OTHER INFORMATION

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. Gosselin, R. E. et al. Clinical Toxicology of Commercial Products, 5th Ed. Baltimore: The Williams and Wilkins Co., 1984. IARC Monographs on the Evaluation of the Carcinogenic Risks to Humans. World Health Organization (Volumes 1-42) Supplement 7. France: 1987. List of Dangerous Substances Classified in Annex I of the EEC Directive (67/548) - Classification, Packaging and Labeling of Dangerous Substances, Amended July 1992. Sixth Annual Report on Carcinogens, 1991. U.S. Department of Health and Human Services. Rockville, MD: Technical Resources, Inc. 1991. Technical Judgment. The Merck Index, 11th Ed. Rahway, New Jersey: Merck and Co., Inc., 1989. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Vendor Information.

Legend:

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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