

MATERIAL SAFETY DATA SHEET OF PYRIDINIUM DICHROMATE

SECTION 1. PRODUCT IDENTIFICATION

MSDS Name: PYRIDINIUM DICHROMATE
Chemical Formula: $2(C_5H_5N).H_2Cr_2O_7$
Synonym: None
Company Identification: Omkar Speciality Chemicals Ltd
W - 92, Unit-I, M.I.D.C. Badlapur (E),
Dist. Thane, 421 503.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

| CAS# | Chemical Name | Percent | EINECS/ELINCS |
|------------|--|---------|---------------|
| 20039-37-6 | Chromic Acid (H ₂ Cr ₂ O ₇), Compd. with Pyridine(1:2) | - | - |

SECTION 3. HAZARD IDENTIFICATION

Appearance: brown to orange powder.

Danger! Strong oxidizer. Contact with other material may cause a fire. Cancer hazard. Causes eye, skin, and respiratory tract irritation.

Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

Inhalation: Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic: May cause cancer according to animal studies.

SECTION 4. FIRST AID

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.



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Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

SECTION 5. FIRE AND EXPLOSION

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water with caution and in flooding amounts.

Extinguishing Media: Use agent most appropriate to extinguish fire. Contact professional fire-fighters immediately. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 0; Instability: 1; Special Hazard: OX

SECTION 6. ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

SECTION 7. HANDLING AND STORAGE

Handling: Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse.

Storage: Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

SECTION 8. PERSONAL PROTECTION/EXPOSURE CONTROLS

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

| Chemical Name | ACGIH | NIOSH | OSHA - Final PELs |
|--|--|-------------|-------------------|
| Chromic Acid (H ₂ Cr ₂ O ₇), Compd. with Pyridine(1:2) | 0.01 mg/m ³ TWA (as Cr) (listed under Chromium (VI) compounds (certain water insoluble forms)). | none listed | none listed |

OSHA Vacated PELs: Chromic Acid (H₂Cr₂O₇), Compd. with Pyridine(1:2): No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear a chemical apron. Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light Orange to Red brown crystalline Powder

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: About 140° C - 149° C

Decomposition Temperature: Not available.

Solubility: insol.in hexane, toluene, ethyl ether

Specific Gravity/Density: Not available.

Molecular Formula: 2(C₅H₅N).H₂Cr₂O₇

Molecular Weight: 376.21

CAS No: (20039-37-6)



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SECTION 10. REACTIVITY/STABILITY

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, ignition sources, dust generation, excess heat, combustible materials, reducing agents, strong oxidants.

Incompatibilities with Other Materials: Reducing agents, strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported

SECTION 11. TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 20039-37-6 unlisted.

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 20039-37-6:

- **ACGIH:** A1 - Confirmed Human Carcinogen (listed as 'Chromium (VI) compounds (certain water insoluble forms)'). A1 - Confirmed Human Carcinogen (listed as 'Chromium (VI) compounds- water soluble').
- **California:** carcinogen, initial date 2/27/87 (listed as Chromium (VI) compounds).
- **NTP:** Known carcinogen (listed as Chromium (VI) compounds).
- **IARC:** Group 1 carcinogen (listed as Chromium (VI) compounds).

Epidemiology: Of 77 chrome platers exposed to chromic acid mist, 15 were found to have papillomas of the oral cavity and larynx. Chromic acid has been shown to produce fetotoxicity in the laboratory embryo or fetus.

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

SECTION 12. ECOLOGICAL INFORMATION

No information available.



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SECTION 13. DISPOSAL

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

SECTION 14. TRANSPORTATION

| | US DOT | Canada TDG |
|-----------------------|-------------------------|---|
| Canada TDG | oxidizing solid, n.o.s. | oxidizing solid nos (pyridinium dichromate) |
| Hazard Class: | 5.1 | 5.1 |
| UN Number: | UN1479 | UN1479 |
| Packing Group: | II | II |

SECTION 15. REGULATORY INFORMATION

US FEDERAL

TSCA

CAS# 20039-37-6 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313

This material contains Chromic Acid (H₂Cr₂O₇), Compd. with Pyridine(1:2) (listed as Chromium (VI) compounds), 98%, (CAS# 20039-37-6) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.



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Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T O

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 45 May cause cancer.

R 8 Contact with combustible material may cause fire.

Safety Phrases:

S 17 Keep away from combustible material.

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).

S 53 Avoid exposure - obtain special instructions before use.

S 28A After contact with skin, wash immediately with plenty of water

Canada - WHMIS

not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

SECTION 16 - ADDITIONAL INFORMATION

This document is intended only as a guide to the appropriate precautionary handling of material by a person trained in chemical handling. The user is responsible for determining the precautions & dangers of this chemical for his or her particular application depending on usage. Adequate protective clothing, including eye / face guards, approved respirators must be used to avoid contact with the material or breathing chemical vapors / fumes. Exposure to this product may cause adverse health effects.

Regd. & Corporate Office: B-34, M.I.D.C., Badlapur (E). Dist. Thane, Maharashtra, India. Pin – 421503

Tel.: + 91-251-269 7340/ 269 0651 Fax: + 91 – 251 – 269 1572 / 269 7347

Email: omkarchem@vsnl.com / info@omkarchemicals.com Web. : www.omkarchemicals.com



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This chemical may interact with other substances. Since the potential uses are so varied, M/s. Omkar Speciality Chemicals Ltd. cannot warn of all of the potential dangers of use or interaction with chemicals of materials. M/s. Omkar Speciality Chemicals Ltd. warrants that, the chemical meets the specifications set forth on the test report.

M/s. Omkar Speciality Chemicals Ltd. Disclaims any other warranties expressed or implied with regard to the product supplied hereunder its merchantability or its fitness for a particular purpose. The user should recognize that, this product can cause severe injury, especially if improperly handled or the known dangers of use are not heeded.

READ ALL PRECAUTIONARY INFORMATIONS.