

**PYRIDINIUM DICHROMATE
CAS NO 20039-37-6**

**MATERIAL SAFETY DATA SHEET
SDS/MSDS**

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Pyridinium Dichromate

CAS-No. : 20039-37-6

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd
7/28 Vardaan House
New Delhi -110002
INDIA

Telephone : +91 11 49404040

Email : care@cdhfinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable solids (Category 1), H228
Oxidizing solids (Category 2), H272
Carcinogenicity, Inhalation (Category 1B), H350i
Skin corrosion (Category 1B), H314
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H228 Flammable solid.
H272 May intensify fire; oxidizer.
H314 Causes severe skin burns and eye damage.
H350i May cause cancer by inhalation.

H410	Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep/Store away from clothing/ combustible materials.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	none
Restricted to professional users.	

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	:	PDC
Formula	:	C ₁₀ H ₁₀ N ₂ ·H ₂ Cr ₂ O ₇
Molecular weight	:	376.20 g/mol
CAS-No.	:	20039-37-6
EC-No.	:	243-478-8
Index-No.	:	024-017-00-8

Hazardous ingredients according to Regulation (EC) No 1272/2008			Concentration
Component		Classification	
Pyridinium dichromate			
CAS-No.	20039-37-6	Flam. Sol. 1; Ox. Sol. 2; Carc.	<= 100 %
EC-No.	243-478-8	1B; Skin Corr. 1B; Aquatic	
Index-No.	024-017-00-8	Acute 1; Aquatic Chronic 1; H228, H272, H350i, H314, H400, H410 M-Factor - Aquatic Acute: 1	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Chromium oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 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.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Keep away from heat and sources of ignition.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Handle and store under inert gas. Hygroscopic.

Storage class (TRGS 510): Flammable solid hazardous materials

7.3 Specific end use(s)

BAM, 48. List of storage group classifications for other potentially explo of peroxide and potentially explosive materials) from 24.06.2011, Nr. 01/2nd SprengV: Storage Group Ia, AK value: 881 kg/min

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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, Flame retardant antistatic protective clothing., 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 (EN 143) respirator cartridges as a backup to engineering controls. If th 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

9.1 Information on basic physical and chemical properties

a) Appearance	Form: crystalline Colour: orange, yellow
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: 152 - 153 °C - lit.
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	The substance or mixture is a flammable solid with the category 1. - Flammability (solids)
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	0.0000001 hPa at 25 °C
l) Vapour density	No data available
m) Relative density	1.713 g/cm3

- | | |
|---|--|
| n) Water solubility | 943 g/l at 20 °C - OECD Test Guideline 105 - clear |
| o) Partition coefficient: n-octanol/water | log Pow: < -3.7 at 20 °C |
| p) Auto-ignition temperature | No data available |
| q) Decomposition temperature | ca.177 - 298 °C - Decomposes on heating. |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | The substance or mixture is classified as oxidizing with the category 2. |

9.2 Other safety information

Burning rate 7.1 mm/s

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Organic materials, Powdered metals

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Chromium oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available Pyridinium dichromate

Skin corrosion/irritation

Skin - in vitro assay(Pyridinium dichromate)

Result: Causes burns.

(EPISKIN Human Skin Model Test)

Serious eye damage/eye irritation

No data available(Pyridinium dichromate)

Respiratory or skin sensitisation

No data available(Pyridinium dichromate)

Germ cell mutagenicity

Ames test(Pyridinium dichromate)

S. typhimurium

Result: Positive results were obtained in some in vitro tests.

Carcinogenicity

This is or contains a component that has been reported to be carcinogenic classification.(Pyridinium dichromate)

Presumed to have carcinogenic potential for humans(Pyridinium dichromate)

IARC: 1 - Group 1: Carcinogenic to humans (Pyridinium dichromate)

Reproductive toxicity

No data available(Pyridinium dichromate)

Specific target organ toxicity - single exposure

No data available(Pyridinium dichromate)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Pyridinium dichromate)

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Pyridinium dichromate)

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to daphnia and other aquatic invertebrates Immobilization EC50 - Daphnia magna (Water flea) - 0.91 mg/l - 48 h(Pyridinium dichromate) (OECD Test Guideline 202)

Toxicity to algae Growth inhibition EC50 - Pseudokirchneriella subcapitata (algae) - 1.05 mg/l - 72 h(Pyridinium dichromate) (OECD Test Guideline 201)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d(Pyridinium dichromate)
Result: 4.7 % - Not biodegradable

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available(Pyridinium dichromate)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.
No data available

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable.
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information**14.1 UN number**

ADR/RID: 1479

IMDG: 1479

IATA: 1479

14.2 UN proper shipping name

ADR/RID: OXIDIZING SOLID, N.O.S. (Pyridinium dichromate)

IMDG: OXIDIZING SOLID, N.O.S. (Pyridinium dichromate)

IATA: Oxidizing solid, n.o.s. (Pyridinium dichromate)

14.3 Transport hazard class(es) ADR/RID: 5.1	IMDG: 5.1	IATA: 5.1
14.4 Packaging group ADR/RID: II	IMDG: II	IATA: II
14.5 Environmental hazards ADR/RID: no	IMDG Marine pollutant: no	IATA: no
14.6 Special precautions for user No data available		

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H228	Flammable solid.
H272	May intensify fire; oxidizer.
H314	Causes severe skin burns and eye damage.
H350i	May cause cancer by inhalation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Further 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. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.