



Safety Data Sheet

Date of Issue: 01.09.2020

Date of Expiry: 01.09.2025

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name: : **ECP Limited**
Address: : PO Box 34125, Birkenhead, Auckland 0746
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Emergency phone number: : 0800 243 622 (24 hours)

Product	Sodium Dichromate Dihydrate			Code	46641 , 5850 , 5852
CAS#	HSNO#	UN #	DG Class/es	Packing group #	
77-12-0	HSR000986	3087	6.1 (5.1)	II	

Recommended use : Laboratory Investigations

2: Hazards identification

2.1 GHS Classification

Oxidizing liquids or solids (Category B)
Acute toxicity, Oral (Category B)
Acute toxicity, Inhalation (Category D)
Acute toxicity, Dermal (Category D)
Skin corrosion (Category B)
Serious eye damage (Category A)
Respiratory sensitisation (Category A)
Germ cell mutagenicity (Category A)
Carcinogenicity (Category A)
Toxic to Reproduction (Category A)
Specific Target Organ Toxicity, Inhalation (Category A)
Aquatic toxicity (Acute or Chronic) (Category A)

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram



Signal word : **Danger**

Hazard statement(s)

H272 : May intensify fire, oxidiser.
H300 : Fatal if swallowed.
H312 : Harmful in contact with skin.
H314 : Causes severe skin burns and eye damage.
H332 : Harmful if inhaled.
H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340 : May cause genetic defects.
H350 : May cause cancer.
H360 : May damage fertility or the unborn child.

- H372 : Causes damage to organs through prolonged or repeated exposure if inhaled.
H400 : Very toxic to aquatic life.

Precautionary statement(s)

Prevention

- P201 : Obtain special instructions before use.
P202 : Do not handle until all safety precautions have been read and understood.
P210 : Keep away from heat.
P220 : Keep/Store away from clothing/ combustible materials.
P221 : Take any precaution to avoid mixing with combustibles.
P260 : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
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/eye protection/face protection.

Response

- P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 : Immediately call a POISON CENTER or doctor/physician.
P363 : Wash contaminated clothing before reuse.
P370 + P378 : In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 : Collect spillage.

Storage

- P405 : Store locked up.

Disposal

- P501 : Dispose of contents/container to an approved waste disposal plant. Restricted to professional users.

2.3 Other Hazards - None

3: Composition/information on ingredients

3.1 Substances

- Synonyms : Sodium bichromate, Chromic acid disodium salt
Formula : Cr₂Na₂O₇ · 2H₂O
Molecular weight : 298.00 g/mol
CAS-No. : 7789-12-0
EC-No. : 234-190-3
Index-No. : 024-004-00-4

Hazardous Components

Component	Classification	Concentration
Sodium dichromate dihydrate	5.1.1 B; 6.1 B; 6.1 D; 8.2 B; 8.3 A; 6.5 A; 6.6 A; 6.7 A; 6.8 A; 6.9 A; 9.1 A; H272, H300, H332, H312, H314, H318, H334, H340, H350, H360, H372, H400 M-Factor - Aquatic Acute: 1	<= 100 %

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. Take victim immediately to hospital. 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.

5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry Powder, Dry Sand

5.2 Special hazards arising from the substance or mixture

Sodium oxides, chromium oxides. Not combustible

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.

6: Accidental release measures

6.1 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.

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.

6.4 Reference to other sections

For disposal see section 13.

7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. 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. Keep away from heat and sources of ignition.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

Component	CAS No.	Value	Control parameters	Basis	
Sodium dichromate dihydrate	7789-12-0	WES-TWA	0.05 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants	
	Remarks	Exposure can also be estimated by biological monitoring. Sensitizer.			
Component	CAS No.	Parameters	Value	Biological Specimen	Basis
Sodium dichromate dihydrate	7789-12-0	Chromium	0.6micro mol per litre	Urine	New Zealand. Biological Exposure Indices
		Chromium	30.0000 µg/l	Urine	New Zealand. Biological Exposure Indices

8.2 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

Eyeface protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

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 full-face particle respirator type or 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.

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.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	
Form	: crystalline
Colour	: orange
b) Odour	: odourless
c) Odour Threshold	: No data available
d) pH	: 3.5 at 100 g/l at 20 °C
e) Melting point/freezing point	: Melting point/range: 91 °C - lit.
f) Initial boiling point and boiling range	: 400 °C at 1,013 hPa - OECD Test Guideline 103 - (decomposition)
g) Flash point	: Not applicable
h) Evaporation rate	: No data available
i) Flammability (solid, gas)	: The product is not flammable. - Flammability (solids)
j) Upper/lower flammability or explosive limits	: No data available
k) Vapour pressure	: Not applicable
l) Vapour density	: No data available
m) Relative density	: 2.52 g/cm ³ at 20 °C - (anhydrous substance)
n) Water solubility	: ca.2,355 g/l - (anhydrous substance), soluble
o) Partition coefficient: n-octanol/water	: Not applicable for inorganic substances
p) Auto-ignition temperature	: does not ignite
q) Decomposition temperature	: 400 °C -
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

No data available

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

No data available

10.5 Incompatible materials

Strong reducing agents, Alcohols

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sodium oxides, Chromium oxides

Other decomposition products - No data available

In the event of fire: see section 5

11: Toxicological information

Acute toxicity

LD50 Oral - Rat - female - 86.5 mg/kg

(OECD Test Guideline 401)
Remarks: (anhydrous substance)
LC50 Inhalation - Rat - male - 4 h - 0.2 mg/l
(OECD Test Guideline 403)
Remarks: (anhydrous substance)
LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg
(OECD Test Guideline 402)
Remarks: (anhydrous substance)

Skin corrosion/irritation

Skin - Rabbit
Result: Severe irritations - 4 h
(OECD Test Guideline 404)
Remarks: (anhydrous substance)

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Severe irritations
Remarks: (anhydrous substance) (IUCLID)
Causes serious eye damage. conjunctivitis

Respiratory or skin sensitisation

Maximisation Test - Guinea pig
Result: positive
Remarks: (HSDB)
May cause sensitisation by skin contact.

Germ cell mutagenicity

May alter genetic material.
May cause genetic defects.
In vivo tests showed mutagenic effects
Ames test
Result: positive
(ECHA)
Mouse - male and female - Red blood cells (erythrocytes)
Result: Positive results were obtained in some in vivo tests.

Carcinogenicity

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
Presumed to have carcinogenic potential for humans
Possible human carcinogen
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.

Reproductive toxicity

May cause congenital malformation in the foetus.
May damage the unborn child.
Presumed human reproductive toxicant
May cause reproductive disorders.
May damage fertility.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

No data available

Additional Information

Repeated dose toxicity - Rat - male and female - 90 Days
(ECHA)

RTECS: HX7750000

Ulceration, Liver injury may occur., Kidney injury may occur.

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

12: Ecological information

Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 33.2 mg/l - 96 h

Remarks: (anhydrous substance)(ECOTOX Database)(ECHA)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 0.112 mg/l - 48 h

Remarks: (anhydrous substance)(ECOTOX Database)(ECHA)

Toxicity to algae

static test EC50 - Selenastrum capricornutum (green algae) - 0.217
mg/l - 96 h

Remarks: (in analogy to similar products)(ECHA)

Toxicity to bacteria

EC50 - activated sludge - 75.5 mg/l - 3 h

(OECD Test Guideline 209)

Remarks: (maximum permissible toxic concentration)

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

No data available

13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Contaminated packaging

Dispose of as unused product.

14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	3087	3087	3087
14.2	UN Proper Shipping name	(Sodium dichromate dihydrate)	OXIDIZING SOLID, TOXIC, N.O.S. (Sodium dichromate dihydrate)	Oxidizing solid, toxic, n.o.s. (Sodium dichromate dihydrate)
14.3	Transport Hazard Class	5.1 (6.1)	5.1 (6.1)	5.1 (6.1)
14.4	Packaging group	II	II	II
14.5	Environmental Hazards	Yes	Yes	Yes
14.6	Special precautions for user	None		
14.7	Incompatible materials	Strong reducing agents, Alcohols		

15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

HSNO Approval Code: HSR000986

HSNO Group Standard Approval: Outside of Group Standard

Tracking Required: 6.1A, 6.1B, 9.1A

Approved Handler Cert.: 6.1A, 6.1B, 9.1A

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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