

Sodium dichromate dihydrate

398063-500G

Version 2.0

Revision Date 04.08.2020

Supersedes 1

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

1.1. Product identifier

Product name : Sodium dichromate dihydrate

SDS-number : 000000021143

Type of product : Substance

Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.
In accordance to the Article 14 (1) of the REACH Regulation
(EC) No 1907/2006, exposure estimation and risk
characterisation is not required.

Chemical name : sodium dichromate, dihydrate

Index-No. : 024-004-00-7

REACH Registration
Number : 01-2119435525-40

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

Use of the
Substance/Mixture : Laboratory chemicals

Uses advised against : all other uses

1.3. Details of the supplier of the safety data sheet

Company	: Honeywell Specialty Chemicals Seelze GmbH Wunstorfer Straße 40 30926 Seelze Germany	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
Telephone	: (49) 5137-999 0	
Telefax	: (49) 5137-999 123	
For further information, please contact:	: PMTEU Product Stewardship: SafetyDataSheet@Honeywell.com	

1.4. Emergency telephone number

Emergency telephone
number : +1-703-527-3887 (ChemTrec-Transport)
+1-303-389-1414 (Medical)

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Country based Poison : see chapter 15.1
Control Center

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Oxidizing solids Category 2
H272 May intensify fire; oxidizer.
Carcinogenicity Category 1B
H350 May cause cancer.
Germ cell mutagenicity Category 1B
H340 May cause genetic defects.
Reproductive toxicity Category 1B
H360FD May damage fertility. May damage the unborn child.
Acute toxicity Category 2 - Inhalation
H330 Fatal if inhaled.
Acute toxicity Category 4 - Dermal
H312 Harmful in contact with skin.
Acute toxicity Category 3 - Oral
H301 Toxic if swallowed.
Specific target organ toxicity - repeated exposure Category 1
H372 Causes damage to organs through prolonged or repeated exposure.
Skin corrosion Category 1B
H314 Causes severe skin burns and eye damage.
Specific target organ toxicity - single exposure Category 3 - Inhalation
H335 May cause respiratory irritation.
Respiratory sensitisation Category 1
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation Category 1
H317 May cause an allergic skin reaction.
Short-term (acute) aquatic hazard Category 1
H400 Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms : 

Signal word : Danger

Hazard statements : H272 May intensify fire; oxidizer.

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	H301	Toxic if swallowed.
	H312	Harmful in contact with skin.
	H314	Causes severe skin burns and eye damage.
	H317	May cause an allergic skin reaction.
	H330	Fatal if inhaled.
	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	H335	May cause respiratory irritation.
	H340	May cause genetic defects.
	H350	May cause cancer.
	H360FD	May damage fertility. May damage the unborn child.
	H372	Causes damage to organs through prolonged or repeated exposure.
	H410	Very toxic to aquatic life with long lasting effects.
Precautionary statements	: P201	Obtain special instructions before use.
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P284	Wear respiratory protection.
	P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P302 + P352	IF ON SKIN: Wash with plenty of water.
	P304 + P340	IF INHALED: Remove person to fresh air and keep 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.
	P308 + P313	IF exposed or concerned: Get medical advice/ attention.

Special labelling of certain products: : Restricted to professional users.

2.3. Other hazards

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Danger of serious damage to health by prolonged exposure. Results of PBT and vPvB assessment, see chapter 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
sodium dichromate, dihydrate	7789-12-0 024-004-00-7 01-2119435525-40 234-190-3	Ox. Sol. 2; H272 Carc. 1B; H350 Muta. 1B; H340 Repr. 1B; H360FD Acute Tox. 2; H330 Acute Tox. 4; H312 Acute Tox. 3; H301 STOT RE 1; H372 Skin Corr. 1B; H314 STOT SE 3; H335 Resp. Sens. 1; H334 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 90 % - <= 100 %	1*

1* - For specific concentration limits see Annexes of 1272/2008

3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
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:

First aider needs to protect himself. Move out of dangerous area. Show this safety data sheet to the doctor in attendance.

Inhalation:

If inhaled, remove to fresh air. Call a physician immediately.

Skin contact:

Then wash with lots of water and soap. Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds.

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Eye contact:

Protect unharmed eye. Rinse thoroughly with plenty of water, also under the eyelids. Call a physician immediately.

Ingestion:

A person suspected to have swallowed the substance who is conscious should be given water to drink. Take to a doctor immediately together with this card

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

If dermatitis develops, avoid contact with the product in the future (contact avoidance can be achieved by the use of proper protective clothing and equipment).

See Section 11 for more detailed information on health effects and symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray jet
Foam
Carbon dioxide (CO₂)
Dry powder

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.
Chromium oxides
Oxidizer. Contact with other material may cause fire.
The product is not flammable.

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5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.
No unprotected exposed skin areas.
Do not use a solid water stream as it may scatter and spread fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Unprotected persons must be kept away. Remove all sources of ignition.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water. If the product contaminates rivers and lakes or drains inform respective authorities. Try to prevent the material from entering drains or water courses.

6.3. Methods and materials for containment and cleaning up

Do not pick up with the help of saw-dust or other combustible substances.
Use mechanical handling equipment.
Pick for disposal in tightly closed containers
Personal protection through wearing a tightly closed chemical protection suit and a self-contained breathing apparatus.

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Avoid exposure - obtain special instructions before use. Wear personal protective equipment. Keep limited supplies at workplace. Use product only in closed system. Never return unused material to storage receptacle.

Advice on protection against fire and explosion:

Keep away from easily oxidizable materials.

Hygiene measures:

When using, do not eat, drink or smoke. Separate rooms are required for washing, showering and changing clothes. Keep working clothes separately. Regular cleaning of equipment, work area and clothing. Contaminated work clothing should not be allowed out of the workplace. Usual hygienic precautions must be taken when working with dangerous cancer causing substances.

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7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Keep in original packaging, tightly closed.

Further information on storage conditions:

Protect from physical damage. Containers should be protected against falling down. Do not leave vessels/containers open. Avoid product residues in/on containers. Keep locked up or in an area accessible only to qualified or authorised persons. Protect from warmth.

Advice on common storage:

Keep away from reducing agents. Do not store together with: Flammable liquids Flammable solids

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
sodium dichromate, dihydrate	EH40 WEL TWA	0,05 mg/m3 as Cr		
sodium dichromate, dihydrate	EU OELIII TWA	0,005 mg/m3 as Cr		
sodium dichromate, dihydrate	EU OELIII TWA	0,010 mg/m3 as Cr		
sodium dichromate, dihydrate	EU OELIII TWA	0,025 mg/m3 as Cr Fume.		
sodium dichromate, dihydrate	ME CMR 8H TWA	0,025 mg/m3		

TWA - Time weighted average

8H TWA - 8-hour TWA:

DNEL/ PNEC-Values

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Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
sodium dichromate, dihydrate	Workers / Long-term local effects		0,01 mg/m3	Inhalation	
sodium dichromate, dihydrate	Workers / Acute local effects		0,01 mg/m3	Inhalation	

Component	Environmental compartment / Value	Remarks
sodium dichromate, dihydrate	Fresh water: 0,0047 mg/l	Assessment factor: 10
sodium dichromate, dihydrate	Sewage treatment plant: 0,21 mg/l	
sodium dichromate, dihydrate	Fresh water sediment: 0,15 mg/kg dw	
sodium dichromate, dihydrate	Marine sediment: 0,15 mg/kg dw	
sodium dichromate, dihydrate	Soil: 0,035 mg/kg dw	Assessment factor: 10

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.
Plan first aid action before beginning work with this product.

Engineering measures

Perform filling operations only at stations with exhaust ventilation facilities.

Personal protective equipment

Respiratory protection:

In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection:

Glove material: Nitrile rubber
Break through time: > 480 min
Glove thickness: 0,11 mm
Dermatril®740
Gloves must be inspected prior to use.
Replace when worn.

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Remarks: Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:

Safety goggles

Face-shield

Skin and body protection:

Wear suitable protective equipment.

Protective suit

Lab coat

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	:	Crystals
Colour	:	orange
Odour	:	odourless
molecular weight	:	298,00 g/mol
Melting point/range	:	ca. 357 °C anhydrous substance
Boiling point/boiling range	:	Decomposes on heating.
Flash point	:	Not applicable
Flammability (solid, gas)	:	The product is not flammable.
Ignition temperature	:	Not applicable

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Auto-ignition temperature	: not auto-flammable
Oxidizing properties	: The substance or mixture is classified as oxidizing with the category 2.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Vapour pressure	: negligible
Density	: 2,52 g/cm ³ at 13 °C
Bulk density	: No data available
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
pH	: No data available
Water solubility	: ca. 2.355 g/l at 20 °C
Partition coefficient: n-octanol/water	: No data available

9.2 Other Information

no additional data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

100 °C

Loss of water of crystallization on heating.

400 °C

Decomposition temperature

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10.3. Possibility of hazardous reactions

Reactions with organic substances.
Hazardous decomposition products formed under fire conditions.

10.4. Conditions to avoid

Protect from contamination.

10.5. Incompatible materials

Flammable materials
Powdered metals
Strong reducing agents
Mixtures of inflammable substances are easily combustible and burn vigorously even under exclusion of air.

10.6. Hazardous decomposition products

Chromium oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

LD50

Species: Rat

Sex: female

Value: 86,5 mg/kg

Test substance: anhydrous substance

LD50

Species: Rat

Sex: male

Value: 123,5 mg/kg

Test substance: anhydrous substance

Acute dermal toxicity:

Classification based on Annex VI of regulation 1272/2008/EC.

Acute inhalation toxicity:

Classification based on Annex VI of regulation 1272/2008/EC.

Skin irritation:

Classification based on Annex VI of regulation 1272/2008/EC.

Eye irritation:

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Classification based on Annex VI of regulation 1272/2008/EC.

Respiratory or skin sensitisation:

Classification based on Annex VI of regulation 1272/2008/EC.

Carcinogenicity:

Note: Classification based on Annex VI of regulation 1272/2008/EC.

Aspiration hazard:

Not applicable

Other information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:

Classification based on Annex VI of regulation 1272/2008/EC.

Toxicity to aquatic plants:

Classification based on Annex VI of regulation 1272/2008/EC.

Toxicity to aquatic invertebrates:

Classification based on Annex VI of regulation 1272/2008/EC.

12.2. Persistence and degradability

Biodegradability:

The methods for determining biodegradability 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

Not applicable

12.6. Other adverse effects

The methods for determining biodegradability are not applicable to inorganic substances.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:

EC Directive 2006/12/EC; 2008/98/EEC

Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

ADR/RID

UN Number : 3086
Description of the goods : TOXIC SOLID, OXIDIZING, N.O.S.
(SODIUM DICHROMATE, DIHYDRATE)
Class : 6.1
Packaging group : II
Classification Code : TO2
Hazard Identification : 65
Number :
ADR/RID-Labels : 6.1 (5.1)
Environmentally hazardous : yes

IATA

UN Number : 3086
Description of the goods : Toxic solid, oxidizing, n.o.s.
(Sodium dichromate, dihydrate)
Class : 6.1
Packaging group : II
Hazard Labels : 6.1 (5.1)

IMDG

UN Number : 3086
Description of the goods : TOXIC SOLID, OXIDIZING, N.O.S.
(SODIUM DICHROMATE, DIHYDRATE)
Class : 6.1
Packaging group : II
Hazard Labels : 6.1 (5.1)
EmS Number : F-A, S-Q

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Marine pollutant : yes
IMDG Code segregation group according chapter 3.1.4.4 :
NONE,

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Regulation (EC) No. 1907/2006, Annex XIV		This product contains an ingredient according to Annex XIV of the REACH Regulation 1907/2006/EC.

Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	808250143
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftinformation); +46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

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	Homburg : 06841/19240
	Mainz : 06131/19240
	Munich : 089/19240
Latvia	+37167042473

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

sodium dichromate, dihydrate	:	H272	May intensify fire; oxidizer.
		H350	May cause cancer.
		H340	May cause genetic defects.
		H360FD	May damage fertility. May damage the unborn child.
		H330	Fatal if inhaled.

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H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H372	Causes damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Further information

All directives and regulations refer to amended versions.

Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community

CAS Chemical Abstracts Service

DNEL Derived no effect level

PNEC Predicted no effect level

vPvB Very persistent and very bioaccumulative substance

PBT Persistent, bioaccumulative and toxic substance

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.