SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Sodium dichromate dihydrate
CAS number	7789-12-0
Synonyms	Sodium bichromate

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

Identified uses	Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids (Category 2)
Acute oral toxicity (Category 3)
Acute dermal toxicity (Category 4)
Acute inhalation toxicity - Dusts and Mists (Category 2)
Skin Corrosion/irritation (Category 1B)
Serious Eye Damage/Eye Irritation (Category 1)
Respiratory sensitization (Category 1)
Skin Sensitization (Category 1)
Germ Cell Mutagenicity (Category 1B)

Carcinogenicity (Category 1B)
Reproductive toxicity (Category 1B)
Specific target organ toxicity (single exposure) (Category 3)
Target organs - respiratory system
Specific target organ toxicity (repeated exposure) (Category 1)
Target organs - Liver, Kidney, Blood

2.2 GHS Label elements, including precautionary statements

Pictogram 

Signal Word Danger

Hazard statements

May intensify fire; oxidizer
Toxic if swallowed
Harmful in contact with skin
Causes severe skin burns and eye damage
May cause respiratory irritation
May cause an allergic skin reaction
Fatal if inhaled
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause genetic defects
May cause cancer
May damage fertility. May damage the unborn child
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product.
Do not breathe dust/fumes/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep/store away from clothing/other combustible materials.
Take any precaution to avoid mixing with combustibles.

Response
Immediately call a POISON CENTER or doctor/physician

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin
Wash contaminated clothing before reuse

	IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower
	If skin irritation or rash occurs: Get medical advice/attention
Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	Rinse mouth
	Do NOT induce vomiting
Fire	In case of fire: Use CO2, dry chemical, or foam for extinction
Storage	Store locked up
	Store in a well-ventilated place. Keep container tightly closed
Disposal	Dispose of contents/container to an approved waste disposal plant

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Very toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Sodium dichromate dihydrate	Sodium bichromate	7789-12-0	>95%
Sodium dichromate	-	10588-01-9	-

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
If swallowed	Do not induce vomiting. Call a physician or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. . Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness,

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media No information available

Unsuitable extinguishing media No information available

5.2 Specific hazards arising from the substance or mixture

The product causes burns of eyes, skin and mucous membranes. Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood, paper, oil, clothing, etc.) Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Special protective equipment and precautions for firefighters

Hazardous combustion products: Highly toxic fumes, Sodium oxides, Chromium oxides. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

5.4 Further information

Flash Point No information available

Autoignition Temperature No information available

Explosion limits

Upper No information available

Lower No information available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

NFPA

Health	Flammability	Instability	Physical hazards
4	0	1	OX

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid dust formation.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. Should not be released into the environment. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not ingest. Do not breathe vapors/dust. Avoid dust formation. Keep away from clothing and other combustible materials.

Hygiene measures

No information available

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Do not store near combustible materials.

Incompatibilities

Combustible materials.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Sodium dichromate dihydrate	(Vacated) Ceiling	0.1 mg/m3
Sodium dichromate	(Vacated) Ceiling	0.1 mg/m3

US. ACGIH Threshold Limit Values

Component	Type	Value
Sodium dichromate dihydrate	TWA	0.05 mg/m3
Sodium dichromate	TWA	0.05 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Sodium dichromate dihydrate	IDLH	15 mg/m3
	TWA	0.0002 mg/m3
Sodium dichromate	IDLH	15 mg/m3
	TWA	0.0002 mg/m3

8.2 Exposure controls

Appropriate engineering controls
Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection
Tightly fitting safety goggles. Face-shield.

Skin protection
Long sleeved clothing.

Body Protection
Wear appropriate protective equipment to minimize skin exposure.

Respiratory protection
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.

Control of environmental exposure
No information available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Orange
Odor	Odorless
Odor Threshold	No information available
pH	3.5-3.9 5% aq.sol

Melting Point/Range	357 °C / 674.6 °F
Boiling Point/Range	400 °C / 752 °F @ 760 mmHg
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No information available
Lower	No information available
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	400 °C
Viscosity	Not applicable
Molecular Formula	Cr2 Na2 O7 . 2 H2 O
Molecular Weight	298
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information
No information available

SECTION 10: Stability and reactivity

10.1 Reactivity
Yes

10.2 Chemical stability
Stable under normal conditions. Oxidizer: contact with combustible/organic material may cause fire.

10.3 Possibility of hazardous reactions
None under normal processing

10.4 Conditions to avoid
Incompatible products. Excess heat. Combustible material.

10.5 Incompatible materials
Organic materials, acids, water, strong bases, acid anhydrides, metals, reducing agents, powdered metals, strong reducing agents, combustible material.

10.6 Hazardous decomposition products
Highly toxic fumes, sodium oxides, chromium oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium dichromate	46 mg/kg	960 mg/kg	0.124 mg/L - 4h

Skin corrosion/irritation
Causes burns by all exposure routes.

Serious eye damage/eye irritation
No information available

Respiratory or skin sensitization
No information available

Germ cell mutagenicity
Mutagenic

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Sodium dichromate dihydrate	7789-12-0	Not listed	Not listed	A1	Not listed	A1
Sodium dichromate	10588-01-9	Group 1	Known	A1	X	A1

Specific target organ toxicity - single exposure
Respiratory system

Specific target organ toxicity - repeated exposure
Liver, Kidney, Blood

Reproductive toxicity
Possible risk of impaired fertility.

Chronic effects
No information available.

11.2 Additional Information
No information available

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
	LC50	Freshwater Fish	33.2 mg/L - 96h
	LC50	Freshwater Fish	69 mg/L - 96h

Sodium dichromate	LC50	Freshwater Fish	213 mg/L - 96h
	EC50	Water Flea	1.4 mg/L - 24h
	EC50	Water Flea	0.098 - 0.129 mg/L - 48h

12.2 Persistence and degradability
Based on information available, may persist

12.3 Bio accumulative potential
No information available

12.4 Mobility in soil
Will likely be mobile in the environment due to its water solubility.

12.5 Results of PBT and vPvB assessment
No information available

12.6 Endocrine disrupting properties
No information available

12.7 Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN-no.	UN3087
Proper Shipping Name	OXIDIZING SOLID, TOXIC, N.O.S.
Proper technical name	Sodium dichromate dihydrate
Hazard Class	5.1
Subsidiary Hazard Class	6.1
Packing Group	II

IMDG

UN-no.	UN3087
Proper Shipping Name	OXIDIZING SOLID, TOXIC, N.O.S.
Proper technical name	Sodium dichromate dihydrate
Hazard Class	5.1
Subsidiary Hazard Class	6.1
Packing Group	II

IATA

UN-no.	UN3087

Proper Shipping Name	OXIDIZING SOLID, TOXIC, N.O.S.
Proper technical name	Sodium dichromate dihydrate
Hazard Class	5.1
Subsidiary Hazard Class	6.1
Packing Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Listed - Section 6

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed - Sodium dichromate - RQ: 10 lb

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 311/312 Hazardous

See section 2 for more information

SARA 313 (TRI reporting)

Threshold values %: 0.1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Listed

Safe Drinking Water Act

Listed

US state regulations

US. Massachusetts RTK - Substance List

Listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

US. Pennsylvania Worker and Community Right-to-Know Law

Listed

California Proposition 65

Listed

SECTION 16: Other information

Issue date: 11/16/2010
Revision 1: 05/30/2023
Revision 2: 07/17/2024

SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.