**Sodium Dichromate, Lab Grade**

## SECTION 1 : Identification of the substance/mixture and of the supplier

**Product name** : **Sodium Dichromate, Lab Grade**

**Manufacturer/Supplier Trade name**:

**Manufacturer/Supplier Article number**: **S25546A**

**Recommended uses of the product and uses restrictions on use**:

**Manufacturer Details**:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

**Supplier Details**:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

**Emergency telephone number**:

Fisher Science Education Emergency Telephone No.: 800-535-5053

## SECTION 2 : Hazards identification

**Classification of the substance or mixture**:

**Health hazard**
Carcinogenicity, category 1B
Respiratory sensitization, category 1
Germ cell mutagenicity, category 1B
Reproductive toxicity, category 1B
Specific target organ toxicity following repeated exposure, category 1

**Corrosive**
Skin corrosion, category 1B
Serious eye damage, category 1

**Irritant**
Skin sensitization, category 1
Acute toxicity (oral, dermal, inhalation), category 4

**Oxidizing**
Oxidizing solids, category 2

**Environmentally Damaging**
Acute hazards to the aquatic environment, category 1
Chronic hazards to the aquatic environment, category 1

**Toxic**
Acute toxicity (oral, dermal, inhalation), category 2

Ox. Sol. 2
Carc. 1B
Repr. 1B
STOT RE 1
Aquatic Acute 1

Aquatic Chronic 1
Acute Oral Tox. 2
Acute Dermal Tox. 4
Acute inhalation tox. 4
Skin Corr. 1B
Eye corr. 1
Skin Sens. 1
Resp. Sens. 1
Muta. 1B

**Signal word** :Danger

**Hazard statements**:
May intensify fire; oxidizer
Fatal if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes severe skin burns and eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause genetic defects
May cause cancer
May damage fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure
Very toxic to aquatic life with long lasting effects
**Precautionary statements**:
If medical advice is needed, have product container or label at hand
Keep out of reach of children
Read label before use
Obtain special instructions before use
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection
Do not handle until all safety precautions have been read and understood
Keep away from heat/sparks/open flames/hot surfaces. No smoking
Keep/Store away from clothing/combustible materials
Take any precaution to avoid mixing with combustibles
Do not breathe dust/fume/gas/mist/vapours/spray
Wash skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Collect spillage
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
Specific measures (see supplemental first aid instructions on this label)
Wash contaminated clothing before reuse
In case of fire: Use agents recommended in section 5 for extinction
Store locked up
Dispose of contents and container to an approved waste disposal plant

**Other Non-GHS Classification**:

**WHMIS**

C

D1A

D2A

E

**NFPA/HMIS**

NFPA SCALE (0-4)

HMIS RATINGS (0-4)

## SECTION 3 : Composition/information on ingredients

| **Ingredients:** | | |
|---|---|---|
| CAS 7789-12-0 | Sodium dichromate dihydrate | 100 % |
| | | Percentages are by weight |

## SECTION 4 : First aid measures

**Description of first aid measures**

**After inhalation:** Loosen clothing as necessary and position individual in a comfortable position.Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen.Immediately get medical assistance.

**After skin contact:** Rinse/flush exposed skin gently using soap and water for 15-20 minutes.Seek immediate medical attention.Remove all contaminated clothing and shoes.

**After eye contact:** Protect unexposed eye. Immediately flush eyes with water for at least 15 minutes. Remove contact lens(es) if able to do so during rinsing.Immediately get medical assistance.

**After swallowing:** Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Never give anything by mouth to an unconscious person.Immediately get medical assistance.

**Most important symptoms and effects, both acute and delayed:**

Irritation, Nausea,Headache, Shortness of breath.Burning sensation;Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. Prolonged or repeated exposure may lead to asthma and perforation of the nasal septum. May cause respiratory tract cancer. May cause liver and

kidney damage. Chronic inhalation may cause nasal septum ulceration and perforation. May cause cancer in humans. May alter genetic material. May impair fertility

**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention, provide SDS document to physician.Physician should treat symptomatically.

## SECTION 5 : Firefighting measures

**Extinguishing media**

**Suitable extinguishing agents:** Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**For safety reasons unsuitable extinguishing agents:** Halocarbon extinguisher

**Special hazards arising from the substance or mixture:**

Combustion products may include carbon oxides or other toxic vapors.Contact with other material may cause fire. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.Sodium oxides, Chromium oxides

**Advice for firefighters:**

**Protective equipment:** Use NIOSH-approved respiratory protection/breathing apparatus.

**Additional information (precautions):** Move product containers away from fire or keep cool with water spray as a protective measure, where feasible.Use spark-proof tools and explosion-proof equipment.Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols.Avoid contact with skin, eyes, and clothing.

## SECTION 6 : Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Use spark-proof tools and explosion-proof equipment.Ensure that air-handling systems are operational.Ensure adequate ventilation.Wear respiratory protection.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Should not be released into environment.

**Methods and material for containment and cleaning up:**

Keep in suitable closed containers for disposal.Wear protective eyeware, gloves, and clothing. Refer to Section 8.Always obey local regulations.Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect solids in powder form using vacuum with (HEPA filter). Evacuate personnel to safe areas.

**Reference to other sections:**

## SECTION 7 : Handling and storage

**Precautions for safe handling:**

Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical materials. Refer to Section 8.Avoid contact with clothing and other combustible materials.Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

**Conditions for safe storage, including any incompatibilities:**

Store away from incompatible materials.Protect from freezing and physical damage.Keep away from food and beverages.Do not store near combustible materials.Keep away from reducing agents.Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in

well sealed containers. Store with like hazards

## SECTION 8 : Exposure controls/personal protection

**Control Parameters:** 7789-12-0, Sodium dichromate dihydrate, 0.05 mg/m3 TWA (as Cr) (listed under Chromium (VI) compounds- water soluble).
7789-12-0, Sodium dichromate dihydrate, 0.001 mg/m3 TWA (as Cr) (listed under Chromates).15 mg/m3 IDLH (as Cr(VI)) (listed under Chromates).

**Appropriate Engineering controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling.Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).Use under a fume hood

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls.When necessary use NIOSH approved breathing equipment.

**Protection of skin:** Select glove material impermeable and resistant to the substance.Select glove material based on rates of diffusion and degradation.Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves.Wear protective clothing.

**Eye protection:** Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).Safety glasses or goggles are appropriate eye protection.

**General hygienic measures:** Perform routine housekeeping.Wash hands before breaks and at the end of work.Avoid contact with skin, eyes, and clothing.Before wearing wash contaminated clothing.

## SECTION 9 : Physical and chemical properties

| | | | |
|---|---|---|---|
| **Appearance (physical state,color)**: | orange-red Crystals | **Explosion limit lower**:<br>**Explosion limit upper**: | Not determined<br>Not determined |
| **Odor**: | Odorless | **Vapor pressure**: | Not determined |
| **Odor threshold**: | Not determined | **Vapor density**: | Not determined |
| **pH-value**: | 3.5-3.9 (5% aq.sol.) | **Relative density**: | 2.350 g/cm3 |
| **Melting/Freezing point**: | 357°C | **Solubilities**: | 2.355 g/l in water |

| | | | |
|---|---|---|---|
| **Boiling point/Boiling range**: | 400°C | **Partition coefficient (n-octanol/water)**: | Not determined |
| **Flash point (closed cup)**: | Not determined | **Auto/Self-ignition temperature**: | Not determined |
| **Evaporation rate**: | Not determined | **Decomposition temperature**: | 400°C |
| **Flammability (solid,gaseous)**: | classified as oxidizing | **Viscosity**: | a. Kinematic:Not determined<br>b. Dynamic: Not determined |
| **Density**: Not determined | | | |

## SECTION 10 : Stability and reactivity

**Reactivity:**Nonreactive under normal conditions.
**Chemical stability:**Stable under normal conditions.
**Possible hazardous reactions:**None under normal processing
**Conditions to avoid:**Incompatible Materials.Dust generation.combustible materials. organic materials
**Incompatible materials:**Water, oxidizing agents, reducing agents, acids, strong bases, acetic anhydride, hydrazine, hydroxylamine, iron, magnesium, nitric acid, oils, sulfuric acid, boron, hydrochloric acid, glycerol, metal powders, silicon, ethanol, 2-propanol.
**Hazardous decomposition products:**Oxygen, sodium oxide, toxic chromium oxide fumes

## SECTION 11 : Toxicological information

| | | |
|---|---|---|
| **Acute Toxicity**: | | |
| **Oral**: | 10588-01-9 | LD50 Rat: 50 mg/kg |
| **Inhalation**: | 10588-01-9 | LC50 Rat: 0.124 mg/m3/4 h |
| **Dermal**: | 10588-01-9 | LD50 Rabbit: 1000 mg/kg |
| **Chronic Toxicity**: | | |
| **Dermal**: | | Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. |
| **Inhalation**: | | Prolonged or repeated exposure may lead to asthma and perforation of the nasal septum. |
| **Oral**: | | May cause liver and kidney damage. |
| **Corrosion Irritation**: No additional information. | | |
| **Sensitization**: | | No additional information. |
| **Single Target Organ (STOT)**: | | Repeated Exposure: Inhalation - Causes damage to organs through prolonged or repeated exposure |
| **Numerical Measures**: | | No additional information. |

| | |
|---|---|
| **Carcinogenicity**: | ACGIH:: A1 - Confirmed Human Carcinogen (listed as 'Chromium (VI) compounds- water soluble')<br>NTP:: Known carcinogen (listed as Chromium (VI) compounds).<br>IARC:: Group 1 carcinogen (listed as Chromium (VI) compounds) |
| **Mutagenicity**: | A mutagenic effect has been demonstrated in animal studies on mammals. |
| **Reproductive Toxicity**: | May cause congenital malformation in the fetus.Presumed human reproductive toxicant. May cause reproductive disorders. |

## SECTION 12 : Ecological information

**Ecotoxicity Persistence and degradability**:
**Bioaccumulative potential**:
**Mobility in soil**: Not Determined
**Other adverse effects**: None identified.

## SECTION 13 : Disposal considerations

**Waste disposal recommendations**:

Contact a licensed professional waste disposal service to dispose of this material.Dispose of empty containers as unused product.Product or containers must not be disposed with household garbage.It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11).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. Ensure complete and accurate classification.

## SECTION 14 : Transport information

**UN-Number**

3086

**UN proper shipping name**

Toxic solids, oxidizing, n.o.s. (Sodium dichromate dihydrate)

**Transport hazard class(es)**

**Class:**
5.1 Oxidizing substances

**Packing group**:I
**Environmental hazard**:
**Transport in bulk**:
**Special precautions for user**:

## SECTION 15 : Regulatory information

**United States (USA)**

**SARA Section 311/312 (Specific toxic chemical listings)**:

Reactive, Acute, Chronic

**SARA Section 313 (Specific toxic chemical listings)**:

None of the ingredients is listed

**RCRA (hazardous waste code)**:

None of the ingredients is listed

**TSCA (Toxic Substances Control Act)**:

7789-12-0 is not on the TSCA Inventory because it is a hydrate.
10588-01-9 Sodium Dichromate

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)**:

10588-01-9 Sodium dichromate dihydrate (Chromium (VI) compounds) 10 lb

**Proposition 65 (California)**:

**Chemicals known to cause cancer**:

7789-12-0 Sodium dichromate dihydrate (Chromium (VI) compounds)

**Chemicals known to cause reproductive toxicity for females**:

7789-12-0 Sodium dichromate dihydrate (Chromium (VI) compounds)

**Chemicals known to cause reproductive toxicity for males**:

7789-12-0 Sodium dichromate dihydrate (Chromium (VI) compounds)

**Chemicals known to cause developmental toxicity**:

7789-12-0 Sodium dichromate dihydrate (Chromium (VI) compounds)

**Canada**

**Canadian Domestic Substances List (DSL)**:

10588-01-9 Sodium Dichromate

**Canadian NPRI Ingredient Disclosure list (limit 0.1%)**:

None of the ingredients is listed

**Canadian NPRI Ingredient Disclosure list (limit 1%)**:

7789-12-0 Sodium dichromate dihydrate (Chromium (VI) compounds)

## SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.Note:. The responsibility to provide a safe workplace remains with the user.The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.The information contained herein is, to the best of our knowledge and belief, accurate.However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material.It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**GHS Full Text Phrases**:

**Abbreviations and acronyms**:

IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
CFR: Code of Federal Regulations (USA)
SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)
TSCA: Toxic Substances Control Act (USA)
NPRI: National Pollutant Release Inventory (Canada)
DOT: US Department of Transportation

**Effective date** : 10.24.2014
**Last updated** : 03.19.2015