



HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

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SAFETY DATA SHEET

Hi Valley Chemical

Borax Pentahydrate

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Borax Pentahydrate
Synonyms: Borax 5 mol
SDS Number: R-075
Product Code: 519002-1, 519002-5, 519002-10, 519002-50
Revision Date: 2/3/2016
Version: 1.0
Supplier Details: High Valley Products, Inc.
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2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Serious Eye Damage/Eye Irritation, 2 A
Health, Reproductive toxicity, 1 B
Environmental, Hazards to the aquatic environment - Acute, 3
Environmental, Hazards to the aquatic environment - Chronic, 3

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H319 - Causes serious eye irritation
H360 - May damage fertility or the unborn child
H402 - Harmful to aquatic life
H412 - Harmful to aquatic life with long lasting effects

GHS Precautionary Statements:

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P273 - Avoid release to the environment.
P281 - Use personal protective equipment as required.
P308+313 - IF exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of contents/container to _

3 COMPOSITION/INFORMATION OF INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
12179-04-3		Borax Pentahydrate

4 FIRST AID MEASURES

Inhalation:	If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin Contact:	Wash with soap and water. Consult a physician.
Eye Contact:	Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5 FIRE FIGHTING MEASURES

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

Special hazards arising from the substance or mixture
Borane/boron oxides, Sodium oxides

Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Handling Precautions: Avoid contact with eyes, skin, or clothing. Avoid formation of dust. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Storage Requirements: Keep container tightly closed. Store in cool/dry area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment: Borates, tetra, sodium salts (pentahydrate) (12179-04-3) [100%]

Personal protective equipment

Eye/face protection: Safety glasses with side-shields conforming to EN166 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 gloves 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.

Full contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M)

Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124
Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or
mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the
CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial
hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It
should not be construed as offering an approval for any specific use scenario.

Body Protection: impervious 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 a
full-face particle respirator type N100 (US) or type P3 (EN 143) 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 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.

Exposure Guidelines

Borates, tetra, sodium salts (pentahydrate) (12179-04-3) [100%]

Components with workplace control parameters

STEL 6 mg/m³ USA. ACGIH Threshold Limit Values
(TLV)

Not classifiable as a human carcinogen

TWA 2 mg/m³ USA. ACGIH Threshold Limit Values
(TLV)

Upper Respiratory Tract irritation

Not classifiable as a human carcinogen

varies

TWA 10 mg/m³ USA. OSHA - TABLE Z-1 Limits for
Air Contaminants - 1910.1000

TWA 2 mg/m³ USA. ACGIH Threshold Limit Values
(TLV)

Not classifiable as a human carcinogen

STEL 6 mg/m³ USA. ACGIH Threshold Limit Values
(TLV)

Upper Respiratory Tract irritation

Personal Protective Equipment:

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Not classifiable as a human carcinogen

varies

TWA 5 mg/m³ USA. NIOSH Recommended

Exposure Limits

TWA 2 mg/m³ USA. ACGIH Threshold Limit Values
(TLV)

Upper Respiratory Tract irritation

Not classifiable as a human carcinogen

varies

STEL 6 mg/m³ USA. ACGIH Threshold Limit Values
(TLV)

Upper Respiratory Tract irritation

Not classifiable as a human carcinogen

varies

Appearance:	Crystalline. White.
Physical State:	Solid
Odor:	Odorless
Odor Threshold:	No data available
Solubility:	No data available
Spec Grav./Density:	No data available
Viscosity:	No data available
Boiling Point:	No data available
Freezing/Melting Pt.:	Melting point/range: 741 °C (1,366 °F)
Flash Point:	No data available
Partition Coefficient:	No data available
Octanol:	log Pow: -1.529 at 22 °C (72 °F)
Vapor Pressure:	No data available
Vapor Density:	No data available
pH:	No data available
Evap. Rate:	No data available
Auto-Ignition Temp:	No data available
Decomp Temp:	No data available
UFL/LFL:	No data available

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	No data available
Materials to Avoid:	Potassium, Acid anhydrides
Hazardous Decomposition:	No data available

Borates, tetra, sodium salts (pentahydrate) (12179-04-3) [100%]

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - 4,500 - 5,000 mg/kg

Inhalation: no data available

LD50 Dermal - rabbit - 10,000 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

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.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: fetotoxicity Presumed human reproductive toxicant

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: VZ2275000

Animal feeding studies in rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes. Studies with the chemically related boric acid in the rat, mouse and rabbit, at high doses, demonstrate developmental effects on the fetus, including fetal weight loss and minor skeletal variations. The doses administered were many times in excess of those to which humans would normally be exposed. Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to boric acid dust and sodium borate dust. A recent epidemiological study under the conditions of normal occupational exposure to borate dusts indicated no effect on fertility.

12 ECOLOGICAL INFORMATION

Borates, tetra, sodium salts (pentahydrate) (12179-04-3) [100%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - *Carassius auratus* (goldfish) - 178 mg/l - 72 h.

Toxicity to daphnia and EC50 - *Daphnia magna* (Water flea) - 1,085 - 1,402 mg/l - 48 h.

other aquatic invertebrates

Toxicity to algae IC50 - *Desmodesmus subspicatus* (green algae) - 158 mg/l - 96 h.

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14 TRANSPORT INFORMATION

Non DOT regulated

15 REGULATORY INFORMATION

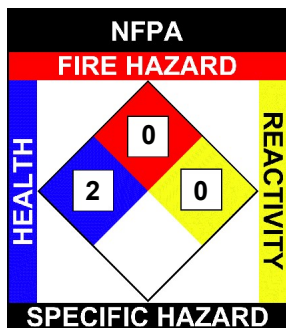
Component (CAS#) [%] - CODES

Regulatory CODE Descriptions

MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA workplace Air Contaminants

16 OTHER INFORMATION

NFPA: Health = 2, Fire = 0, Reactivity = 0, Specific Hazard = n/a
HMIS III: Health = 2(Chronic), Fire = 0, Physical Hazard = 0



HMIS	
HEALTH	<input checked="" type="checkbox"/> 2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	<input type="checkbox"/>

Disclaimer:

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