

SECTION 1: Identification**1.1. Identification**

| | |
|-------------------------------|-----------------------------------|
| Product form | : Powder |
| Substance name | : Potassium Tetraborate |
| CAS No | : 12045-78-2 |
| Product code | : TETR-POT-MOL |
| Formula | : $B_4K_2O_7 \cdot 4H_2O$ |
| Synonyms | : Potassium Biborate Tetrahydrate |
| Other means of identification | : None |

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

| | |
|------------------------------|---|
| Use of the substance/mixture | : Laboratory chemicals Manufacture of substances Industrial Manufacturing |
|------------------------------|---|

1.3. Details of the supplier of the safety data sheet

Laboratorios Hersol SA de CV
Niños Héroes #116, Bo. La Concepción
San Mateo Atenco, Estado de México. CP.52100
Tel: +52 (728) 287 1981
contacto@labhersol.com.mx, www.labhersol.com.mx

1.4. Emergency telephone number

Emergency number : México:SETIQ +52-55-5559-1588. NCEC(+ 1) 202 464 2554 (24h) (USA, Canada)

SECTION 2: Hazard(s) identification**2.1. Classification of the substance or mixture****Classification (GHS-US)**

Reproductive Toxicity Category 2

2.2. Label elements**GHS-US labeling**

Hazard pictograms (GHS-US)



GHS08

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H361 - Suspected of damaging fertility or the unborn child.

Precautionary statements (GHS-US)

: P281 – Use personal protective equipment as required.
P308+P313 - IF exposed or concerned: Get medical advise/attention.

Potassium Tetraborate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations



2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

| Name | Product identifier | % | |
|---|---------------------|---------|---|
| Potassium Borate Tetrahydrate (Main constituent) | (CAS No) 12045-78-2 | > 99.5% | See Section 8 for Occupational Exposure Limits. |

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: **Protection for first-aiders:** No special protective clothing is required.

Inhalation: If symptoms such as nose or throat irritation are observed, remove to fresh air.

Eye contact: Use eye wash fountain or fresh water to cleanse eye. If irritation persists for more than 30 minutes, seek medical attention.

Skin contact: No treatment necessary.

Ingestion: Swallowing small quantities (one teaspoon) will cause no harm to healthy adults. If larger amounts are swallowed, give two glasses of water to drink and seek medical attention.

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

No information available

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

Note to Physician. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray, Carbon dioxide (CO₂), Dry Chemical, Chemical foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Special hazards arising from the chemical:
Thermal decomposition can lead to release irritating gases and vapors.

5.3. Advice for firefighters

Firefighting instructions : As in any fire, wear self-contained breathing apparatus pressure demand and full protective gear.

Potassium Tetraborate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations



SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ensure adequate ventilation.

See section 12 for additional ecological information.

6.2. Environmental precautions

6.3. Methods and material for containment and cleaning up

For containment : Avoid spillage into water and cover drains.
Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust.
Other information : For disposal of solid materials or residues refer to section 13: "Disposal considerations".

6.4. Reference to other sections

Refer to sections 8, 12 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Good housekeeping procedures should be followed to minimize dust generation and accumulation.
Avoid spills. Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

No special handling precautions are required, but dry, indoor storage is recommended. To maintain package integrity and to minimize caking of the product, bags should be handled on a first-in first-out basis.

Storage temperature: Ambient

Storage pressure: Atmospheric

Special sensitivity: Moisture (Caking)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Use local exhaust ventilation to keep airborne concentrations of dust below permissible exposure limits.
Personal protection equipment : Eye and face protection: Eye protection according to ANSI Z.87.1 or other national standards may be warranted if environment is excessively dusty.
Skin protection : Standard work gloves (cotton, canvas or leather) may be warranted if environment is excessively dusty.
Respiratory protection : Where airborne concentrations are expected to exceed exposure limits, respirators should be used.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid, Powder
Color : White
Odor : Odorless
Odor threshold : Not applicable: Odorless
pH @20°C : 9.2 - 9.3
Melting point : >850°C / 1562°F

Potassium Tetraborate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|---|---------------------|
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Vapor pressure | : No data available |
| Relative density | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Specific gravity / density | : No data available |
| Molecular weight | : 305.50 |
| Solubility | : No data available |
| Log Pow | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Under normal ambient temperatures (-40 °C to +40°C), the product is stable.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Incompatible products

10.5. Incompatible materials

Strong oxidizing agents, strong acids, strong anhydrides.

10.6. Hazardous decomposition products

Oxides or boron.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)

No acute information is available for this product.

(a) Acute toxicity

Based on the available data, the classification criteria are not met.

(b) **Skin corrosion / irritation:** No data on the product itself.

(c) **Serious eye damage / irritation:** No data on the product itself.

(d) **Respiratory or skin sensitization:** Not a skin sensitizer.

(e) **Germ cell mutagenicity:** No data on the product itself. Not mutagenic based on boric acid.

Potassium Tetraborate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations



(f) **Carcinogenicity:** No data on the product itself. Not carcinogenic based on boric acid.

(g) **Reproductive toxicity:** Category 2

(h) **STOT-single exposure:** No data on the product itself.

(i) **STOT-repeated exposure:** No data on the product itself.

(j) **Aspiration hazard:** Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity (aquatic and terrestrial, where available) Do not empty into drains.

Potassium Pentaborate

Safety Data Sheet

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12.2 Persistence and Degradability

Soluble in water, Persistence is unlikely, based on information available. Not relevant for inorganic substances.

12.3 Bioaccumulative potential

Bio accumulation is unlikely.

12.4 Mobility in soil

The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

12.5 Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Product packaging should be recycled where possible.
Local authorities should be consulted about any specific local requirements
Such product should, if possible, be used for an appropriate application.

SECTION 14: Transport information

Transport Classification for Road (ADR/DOT/TDG) / Rail (RID); Inland waterways (ADN); Sea (IMDG); Air (ICAO/IATA)

| | |
|--|---------------|
| 14.1 UN Number: | Not Regulated |
| 14.2 UN Proper Shipping Name: | Not Regulated |
| 14.3 Transport hazard class(es): | Not Regulated |
| 14.4 Packing Group: | Not Regulated |
| 14.5 Environmental Hazards (e.g. marine pollutant): | Not Regulated |
| 14.6 Special precautions for user: | Not Regulated |
| 14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC code: | Not Regulated |

SECTION 15: Regulatory information

15.1. US Federal regulations

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

Clean Air Act (Montreal Protocol) - Substances that deplete the ozone layer: Not manufactured with and does not contain any Class I or Class II ozone depleting substances.

Regulation (EC) No 689/2008 - Export and Import of Dangerous Chemicals: Not listed.

National Regulations: Ensure all national/local regulations are observed.

Chemical inventory listing: The listing is sometimes under the Inventory number of the anhydrous form of this inorganic salt.

Potassium Pentaborate

Safety Data Sheet

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SECTION 16: Other information

None.

Abbreviations and acronyms:

EC: Effect concentration

GHS: Global Harmonised System for classification and labelling of chemicals LC: Lethal Concentration

LD: Lethal Dose

STOT: Specific Target Organ Toxicity

LOEC: Lowest Observed Effect Concentration

NA: Not applicable.

NOAEL: No observed adverse effect level

NOEC: No Observed Effect Concentration

STP: Sewage Treatment Plant

Precautionary Phrases:

KEEP OUT OF REACH OF CHILDREN. Do not ingest.

Not for use in food, drugs or pesticides. Refer to safety data sheet.