

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name CH50 Calibrator 1

Other means of identification

Product Code 997-43801

Recommended use of the chemical and restrictions on use

Recommended Use For In Vitro Diagnostic Use.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Wako Pure Chemical Industries, Ltd.
1-2 Doshomachi 3-Chome
Chuo-ku, Osaka 540-8605, Japan
Phone: +81 (0)6-6203-3741
Fax: +81 (0)6-6203-4640

Distributor

Wako Life Sciences, Inc.
Address : 1025 Terra Bella Ave., Suite A, Mountain View, CA 94043, USA
Phone : +1 (877)714-1924

Emergency telephone number

Emergency telephone +1 (800)424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Reproductive Toxicity

Category 1B

Pictograms



Signal word

Danger

Hazard statements

H360 - May damage fertility or the unborn child

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.

Precautionary statements-(Response)

- IF exposed or concerned: Get medical advice/attention

Precautionary statements-(Storage)

- Store locked up.

Precautionary statements-(Disposal)

- Dispose of contents/container to an approved waste disposal plant

Others
Other hazards Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Mixture

| Chemical Name | Molecular weight | CAS No | Weight-% |
|---------------|------------------|------------|----------|
| Boric acid | 61.83 | 10043-35-3 | < 5% |

Impurities and/or Additives : Not applicable

4. FIRST AID MEASURES

First aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Inhalation Remove to fresh air.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge none.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods and material for containment and cleaning up Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Protective measures Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage conditions Store away from sunlight in the freezer (lower than $-10\text{ }^{\circ}\text{C} = 14^{\circ}\text{F}$).

Packaging materials Glass.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits

| Chemical Name | ACGIH | OSHA PEL | NIOSH IDLH |
|--------------------------|---|----------|------------|
| Boric acid 10043-35-3 | STEL: 6 mg/m ³ inhalable fraction TWA: 2 mg/m ³ inhalable fraction | - | - |

Personal protective equipment

Respiratory protection Protective mask
Hand protection Protection gloves
Eye protection protective eyeglasses or chemical safety goggles
Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Color light yellow
Appearance lyophilisate
Odor No data available
pH 6
Melting point/freezing point No data available
Boiling point, initial boiling point and boiling range No data available

| | |
|---|-------------------|
| Flash point | No data available |
| Evaporation rate: | No data available |
| Flammability (solid, gas): | No data available |
| Upper/lower flammability or explosive limits | |
| Upper : | No data available |
| Lower : | No data available |
| Vapour pressure | No data available |
| Vapour density | No data available |
| Specific Gravity / Relative density | No data available |
| Solubilities | No data available |
| n-Octanol/water partition coefficient:(log Pow) | No data available |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| Viscosity (coefficient of viscosity) | No data available |
| Dynamic viscosity | No data available |

10. STABILITY AND REACTIVITY

Stability

| | |
|-------------------|--|
| Stability | Stable under recommended storage conditions. |
| Reactivity | No data available |

Hazardous reactions

None under normal processing

Conditions to avoid

No information available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

No information available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|--------------------|-------------------------|-------------------------|
| Boric acid | 2660 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | > 0.16 mg/L (Rat) 4 h |

| Chemical Name | Acute toxicity -oral- source information | Acute toxicity -dermal- source information | Acute toxicity -inhalation gas-source information |
|---------------|--|---|---|
| Boric acid | LD50(oral,rat):2,660 mg/kg, 5,140 mg/kg, 3,160 mg/kg, 3,450 mg/kg, 4,080 mg/kg, 5,000 mg/kg(DFGOT vol.5 (1993)). | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. |

| Chemical Name | Acute toxicity -inhalation vapor- source information | Acute toxicity -inhalation dust-source information | Acute toxicity -inhalation mist-source information |
|---------------|--|--|--|
| Boric acid | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. |

Skin irritation/corrosion

| Chemical Name | Skin corrosion irritation source information |
|---------------|---|
| Boric acid | Based on the NITE GHS classification results. |

Serious eye damage/ irritation

| Chemical Name | Serious eye damage source information |
|---------------|---|
| Boric acid | Based on the NITE GHS classification results. |

Respiratory or skin sensitization

| Chemical Name | Respiratory, Skin sensitization source information |
|---------------|--|
| Boric acid | Based on the NITE GHS classification results. |

Reproductive cell mutagenicity

| Chemical Name | Mutagenic source information |
|---------------|---|
| Boric acid | Based on the NITE GHS classification results. |

Carcinogenicity

| Chemical Name | Carcinogenicity source information |
|---------------|---|
| Boric acid | ACGIH : A4 (2005) (as Borates compounds, Inorganic) . |

| Chemical Name | NTP | IARC | ACGIH | JSOH (Japan) |
|--------------------------|-----|----------|-------|--------------|
| Boric acid 10043-35-3 | | Group 2A | | |

Reproductive toxicity

| Chemical Name | Reproductive toxicity source information |
|---------------|---|
| Boric acid | Based on the NITE GHS classification results. |

STOT-single exposure

| Chemical Name | STOT -single exposure- source information |
|---------------|---|
| Boric acid | Based on the NITE GHS classification results. |

STOT-repeated exposure

| Chemical Name | STOT -repeated exposure- source information |
|---------------|---|
| Boric acid | Based on the NITE GHS classification results. |

Aspiration hazard

| Chemical Name | Aspiration Hazard source information |
|---------------|---|
| Boric acid | Based on the NITE GHS classification results. |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|--------------------------|----------------------|------|----------------------------|---|
| Boric acid 10043-35-3 | | | | EC50:Daphnia magna 115 - 153 mg/L 48 h |

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility

| Chemical Name | Partition coefficient |
|--------------------------|-----------------------|
| Boric acid 10043-35-3 | -0.757 |

Mobility in soil

No information available

Other Data

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Precautionary including method of disposing contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT Not regulated
 UN/ID No -
 Proper shipping name:
 UN classification
 Subsidiary hazard class
 Packing group
 Marine pollutant Not applicable

IATA Not regulated
 UN/ID No -
 Proper shipping name:
 UN classification
 Subsidiary hazard class
 Packing group
 Environmentally Hazardous Substance Not applicable

IMDG Not regulated
 UN/ID No -
 Proper shipping name:
 UN classification
 Subsidiary hazard class
 Packing group
 Marine pollutant (Sea) Not applicable

15. REGULATORY INFORMATION

International Inventories

TSCA Listed
 DSL Listed
 NDSL -
 EINECS/ELINCS Listed
 ENCS Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|----|
| Acute health hazard | No |
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any chemicals regulated by Proposition 65

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

Revision Date 09-Oct-2015

Revision Note

No information available

Disclaimer

The information provided in this Material 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.

End of Safety Data Sheet