

## MATERIAL SAFETY DATA SHEET

**ICBR1-1**; **ICBR1-5** 

Revision Number 4, Revision Date January 28, 2013

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

Product code ICBR1

Product name1,000 μg/mL BromideCommon NameBromide in WaterManufacturer, importer, supplierInorganic Ventures

300 Technology Drive Christiansburg, VA 24073

Web: www.inorganicventures.com 800-424-9300 CHEMTREC (24 hrs)

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

| CAS       | Chemical<br>Name  | % Weight | ACGIH* | ACGIH* | OSHA* | OSHA* | OSHA* | OSHA* | OSHA* |
|-----------|-------------------|----------|--------|--------|-------|-------|-------|-------|-------|
| 7732-18-5 | Water             | ~95-99.9 | N/A    | N/A    | N/A   | N/A   | N/A   | N/A   | N/A   |
| 7758-02-3 | Potassium bromide | ~0.1-1   | N/A    | N/A    | N/A   | N/A   | N/A   | N/A   | N/A   |

<sup>\*</sup> ACGIH - Occupational Exposure Limits - TWAs

Eye contact

#### 3. HAZARDS IDENTIFICATION

| Emergency Overview             |  |
|--------------------------------|--|
| Final product is not regulated |  |

Contact with eyes may cause irritation

| 4. FIRST AID MEASURES                           |   |  |  |  |
|---|---|--|--|--|
| General advice                                  | Show this safety data sheet to the doctor in attendance   |  |  |  |
| Skin contact                                    | <ul> <li>Wash off immediately with soap and plenty of water removing all<br/>contaminated clothes and shoes</li> </ul>  |  |  |  |
| Eye contact                                     | <ul> <li>Immediately flush with plenty of water. After initial flushing, remove any<br/>contact lenses and continue flushing for at least 15 minutes</li> </ul> |  |  |  |
|   | Keep eye wide open while rinsing  |  |  |  |
|   | If eye irritation persists, consult a specialist  |  |  |  |
| Inhalation                                      | Move to fresh air   |  |  |  |
| Ingestion • If conscious, drink plenty of water |   |  |  |  |
|   | Consult a physician   |  |  |  |

#### **5. FIRE-FIGHTING MEASURES**

| Flash point                                   | NA   |
|---|--|
| Suitable extinguishing media                  | <ul> <li>Use extinguishing measures that are appropriate to<br/>local circumstances and the surrounding environment</li> </ul>               |
| Specific hazards                              | None   |
| Specific methods                              | <ul> <li>Fire residues and contaminated fire extinguishing<br/>water must be disposed of in accordance with local<br/>regulations</li> </ul> |
| Special protective equipment for firefighters | <ul> <li>As in any fire, wear self-contained breathing<br/>apparatus pressure-demand, MSHA/NIOSH</li> </ul>                                  |

<sup>\*</sup> ACGIH - Occupational Exposure Limits - STELs

<sup>\*</sup> OSHA - Final PELs - Time Weighted Averages (TWAs)

<sup>\*</sup> OSHA - Final PELs - Ceiling Limits

<sup>\*</sup> OSHA - Final PELs - Short Term Exposure Limits

<sup>\*</sup> OSHA - Regulated Carcinogens

<sup>\*</sup> OSHA - Select Carcinogens

|   | (approved or equivalent) and full protective gear |
|---|---|
| NFPA (National Fire Protection Association) | Health - 1  |
|   | Fire Hazard - 0                                   |
|   | Reactivity - 0                                    |

| 6. ACCIDENTAL RELEASE MEASURES |   |  |  |  |
|--------------------------------|---|--|--|--|
| Personal precautions           | Ensure adequate ventilation   |  |  |  |
| Environmental precautions      | Prevent further leakage or spillage if safe to do so  |  |  |  |
| -                              | Prevent product from entering drains  |  |  |  |
| Methods for cleaning up        | Dam up  |  |  |  |
|                                | Pick up and transfer to properly labelled containers  |  |  |  |
|                                | Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container |  |  |  |
|                                | After cleaning, flush away traces with water  |  |  |  |

## 7. HANDLING AND STORAGE

## Handling

| Technical measures/Precautions | Use only in area provided with appropriate exhaust ventilation |
|--------------------------------|--|
| Safe handling advice           | Wear personal protective equipment                             |

## **Storage**

| Technical             | Keep in properly labelled containers                                    |
|-----------------------|---|
| measures/Precautions  | Store at room temperature in the original container                     |
|                       | Keep containers tightly closed in a dry, cool and well-ventilated place |
| Incompatible products | No information available  |

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Personal protective equipment |   |
|-------------------------------|---|
| Hand protection               | impervious gloves                                     |
| Eye protection                | tightly fitting safety goggles                        |
| Respiratory protection        | Ensure adequate ventilation                           |
| Skin and body protection      | Chemical resistant apron                              |
|                               | Lab coat  |
| Hygiene measures              | When using, do not eat, drink or smoke                |
|                               | Regular cleaning of equipment, work area and clothing |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## **General Information**

Form liquid.
Appearance clear
Colour colorless.
Odour None.

# **Important Health Safety and Environmental Information**

pH 6 to 8

Boiling point/range 100°C

Flash point N/A

Vapour pressure NA.

Water solubility miscible.

| 10 | STABIL | ITY . | RFΔ | CTI        | /ITY    |
|----|--------|-------|-----|------------|---------|
|    |        | -1111 |     | $\sim$ 111 | / I I I |

| Stability | Stable under normal conditions |
|-----------|--------------------------------|

|                                  | Hazardous polymerization does not occur |
|----------------------------------|---|
| Materials to avoid               | No information available                |
| Hazardous decomposition products | No information available                |

#### 11. TOXICOLOGICAL INFORMATION

## **Acute toxicity**

#### **Component Information**

| CAS       | Chemical Name     | % Weight | LD50/oral/rat =           | LD50/dermal/rat =         |
|-----------|-------------------|----------|---------------------------|---------------------------|
| 7732-18-5 | Water             | ~95-99.9 | N/A                       | N/A                       |
| 7758-02-3 | Potassium bromide | ~0.1-1   | Oral LD50 Rat: 3070 mg/kg | Oral LD50 Rat: 3070 mg/kg |

#### **Product Information**

| Local effects  |  |
|----------------|--|
| Eye irritation | May cause eye irritation with susceptible persons. |
| Ingestion      | Moderately toxic.                                  |

## 12. ECOLOGICAL INFORMATION

## **Ecotoxicity effects**

## **Component Information**

| CAS       | Chemical Name     | % Weight | EFFSD* | EMD - Ecotoxicity* | EFAD* |
|-----------|-------------------|----------|--------|--------------------|-------|
| 7732-18-5 | Water             | ~95-99.9 | N/A    | N/A                | N/A   |
| 7758-02-3 | Potassium bromide | ~0.1-1   | N/A    | N/A                | N/A   |

<sup>\*</sup> EFFSD - Ecotoxicity - Freshwater Fish Species Data

## **Product Information**

Do not allow material to contaminate ground water or sewage system

#### Other information

| 13. DISPOSAL CONSIDERATIONS           |  |  |  |  |  |  |
|---------------------------------------|--|--|--|--|--|--|
| Waste from residues / unused products | In accordance with local and national regulations  |  |  |  |  |  |
| Contaminated packaging                | <ul> <li>Empty containers should be taken for local recycling, recovery or waste disposal</li> </ul> |  |  |  |  |  |

#### 14. TRANSPORT INFORMATION

**DOT** Final product is not regulated

IATA-DGR Final product is not regulated

#### **15. REGULATORY INFORMATION**

#### **U.S. INVENTORIES**:

| CAS       | Chemical Name     | % Weight | CPCL* | NJRTK* | CERCLA/SARA* | TSCA*   |
|-----------|-------------------|----------|-------|--------|--------------|---------|
| 7732-18-5 | Water             | ~95-99.9 | N/A   | N/A    | N/A          | Present |
| 7758-02-3 | Potassium bromide | ~0.1-1   | N/A   | N/A    | N/A          | Present |

<sup>\*</sup> CPCL - California - Proposition 65 - Carcinogens List

:

<sup>\*</sup> EMD - Ecotoxicity - Microtox Data

<sup>\*</sup> EFAD - Ecotoxicity - Freshwater Algae Data

<sup>\*</sup> NJRTK - New Jersey - Department of Health RTK List

<sup>\*</sup> CERCLA/SARA - Hazardous Substances and their Reportable Quantities

<sup>\*</sup> TSCA - United States - Section 8 (b) Inventory (TSCA)

#### INTERNATIONAL INVENTORIES:

| CAS       | Chemical Name     | % Weight | AICS -<br>Australia* | EINECCS -<br>European Union* | ELINCS - EU list<br>of Notified<br>Chemical<br>Substances<br>(ELINCS) | ENCS* | WHMIS*  |
|-----------|-------------------|----------|----------------------|------------------------------|---|-------|---|
| 7732-18-5 | Water             | ~95-99.9 | Present              | 231-791-2                    | N/A   | N/A   | Uncontrolled product according to WHMIS classification criteria |
| 7758-02-3 | Potassium bromide | ~0.1-1   | Present              | 231-830-3                    | N/A   | 1-108 | D2A   |

<sup>\*</sup> AICS - Australia - Inventory of Chemical Substances (AICS)

#### **16. OTHER INFORMATION**

The above information is believed to be accurate and represents the best information available to us. It has been compiled from the data presented in various technical publications and our experience and should only be used as a guide for handling this product. It is the user's responsibility to determine the suitability of this information for their particular purposes. We assume that only qualified individuals, trained and familiar with procedures suitable to this product will handle this material. Inorganic Ventures, Inc. assumes no responsibility and shall not be held liable for any damage resulting from misuse of this product.

<sup>\*</sup> EINECCS - European Union - European inventory of Existing Commercial Chemical Substances (EINECCS)

<sup>\*</sup> ENCS - Japan Existing and New Chemical Substances (ENCS)

<sup>\*</sup> WHMIS - Canada - WHMIS - Classifications of Substances