SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
- Trade name: POTASSIUM FLUOROBORATE
- Synonyms: Potassium tetrafluoroborate
- Molecular formula: KBF4

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

Uses of the Substance / Mixture
- Metallurgy
- Chemical industry
- Abrasive

1.3 Details of the supplier of the safety data sheet

Company
SOLVAY FLUORIDES, LLC
3737 Buffalo Speedway,
Suite 800,
Houston, TX 77098
USA
Tel: 800-515-6065

1.4 Emergency telephone
FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)
- Not a hazardous product according to the OSHA Globally Harmonized System (GHS).

2.2 Label elements

HCS 2012 (29 CFR 1910.1200)
- Not a hazardous product according to the OSHA Globally Harmonized System (GHS).

2.3 Other hazards which do not result in classification

None identified

SECTION 3: Composition/information on ingredients

3.1 Substance
Hazardous Ingredients and Impurities
- No ingredients are hazardous.

3.2 Mixture
Not applicable, this product is a substance.

SECTION 4: First aid measures

4.1 Description of first-aid measures

In case of inhalation
- Move to fresh air.
- If symptoms persist, call a physician.

In case of skin contact
- Wash off with soap and water.

In case of eye contact
- In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If eye irritation persists, consult a specialist.

In case of ingestion
- Rinse mouth with water.
- Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation
Effects
- May cause nose, throat, and lung irritation.

In case of skin contact
Effects
- Prolonged skin contact may cause skin irritation.

In case of eye contact
Effects
- May cause eye irritation.

In case of ingestion
Effects
- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician
- If accidentally swallowed obtain immediate medical attention.
- When symptoms persist or in all cases of doubt seek medical advice.
SECTION 5: Firefighting measures

Flash point Not applicable

Autoignition temperature not auto-flammable

Flammability / Explosive limit No data available

5.1 Extinguishing media

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

Unsuitable extinguishing media
- None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting
- Hazardous decomposition products formed under fire conditions.

Hazardous combustion products:
- Hydrogen fluoride

5.3 Advice for firefighters

Special protective equipment for fire-fighters
- Exposure to decomposition products may be a hazard to health.
- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.
- Cool containers/tanks with water spray.
- Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel
- Evacuate personnel to safe areas.
- Avoid dust formation.

Advice for emergency responders
- Use personal protective equipment.
- Sweep up to prevent slipping hazard.
- Prevent further leakage or spillage.

6.2 Environmental precautions
- Should not be released into the environment.
- Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up
- Pick up and transfer to properly labeled containers.
- Keep in suitable, closed containers for disposal.
6.4 Reference to other sections
   - Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
   - Ensure adequate ventilation.
   - Keep away from heat and sources of ignition.
   - Keep away from incompatible products

Hygiene measures
   - Eye wash bottles or eye wash stations in compliance with applicable standards.
   - When using do not eat, drink or smoke.
   - Wash hands before breaks and at the end of workday.
   - Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions
   - Store in original container.
   - Keep in a well-ventilated place.
   - Keep in a dry place.
   - Keep in properly labeled containers.
   - Keep container closed.
   - Keep away from:
     - Incompatible products

Packaging material

Suitable material
   - Paper.
   - Polyethylene
   - Conductive PE + carton

Unsuitable material
   - No data available

7.3 Specific end use(s)
   - Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters
   - Contains no substances with occupational exposure limit values above their regulatory reporting threshold.
8.2 Exposure controls

Control measures

Engineering measures
- Provide appropriate exhaust ventilation at places where dust is formed.
- Apply technical measures to comply with the occupational exposure limits.

Individual protection measures

Respiratory protection
- Use only respiratory protection that conforms to international/ national standards.
- Respirator with a particle filter (EN 143)
- Use NIOSH approved respiratory protection.

Hand protection
- Wear suitable gloves.
- Neoprene
- PVC

Eye protection
- Safety goggles

Skin and body protection
- Dust impervious protective suit

Hygiene measures
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Form: powder, crystalline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical state: solid</td>
</tr>
<tr>
<td></td>
<td>Color: white</td>
</tr>
<tr>
<td></td>
<td>Particle size: 2.75 µm d 10</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22.45 µm d 50</td>
</tr>
<tr>
<td></td>
<td>41.87 µm d 90</td>
</tr>
</tbody>
</table>

Odor
- odorless

Odor Threshold
- No data available
Molecular weight: 125.9 g/mol

pH: 3.0
saturated aqueous solution

pKa: Not applicable

Melting point/freezing point
Melting point/range: 986 °F (530 °C)
Decomposition: Decomposes before melting.

Initial boiling point and boiling range
Boiling point/boiling range: Not applicable

Flash point: Not applicable

Evaporation rate (Butylacetate = 1): Not applicable

Flammability (solid, gas)
The product is not flammable.

Flammability / Explosive limit
Explosiveness: Not explosive

Autoignition temperature
not auto-flammable

Vapor pressure: Not applicable

Vapor density: Not applicable

Density: 2.505 g/cm3 (68 °F (20 °C))

Bulk density: 1,100 kg/m3

Relative density: 2.505 (68 °F (20 °C))

Solubility
Water solubility:
5.40 g/l (72 °F (22 °C))(pH: 3)
soluble

Partition coefficient: n-octanol/water: Not applicable

Decomposition temperature: >= 986 °F (>= 530 °C)

Viscosity
Viscosity, dynamic: Not applicable

Explosive properties
No data available

Oxidizing properties
Not considered as oxidizing.
9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

- None known.

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- None known.

10.4 Conditions to avoid

- Heat.

10.5 Incompatible materials

- Incompatible with strong acids and bases.
- Water
- Water reactive

10.6 Hazardous decomposition products

- Hydrogen fluoride

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity No data available
Acute inhalation toxicity No data available
Acute dermal toxicity No data available
Acute toxicity (other routes of administration) No data available
Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory or skin sensitization No data available
Mutagenicity

Genotoxicity in vitro  No data available
Genotoxicity in vivo  No data available

Carcinogenicity  No data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:
NTP
IARC
OSHA

Toxicity for reproduction and development

Toxicity to reproduction / fertility  No data available
Developmental Toxicity/Teratogenicity  No data available

STOT

STOT-single exposure  No data available
STOT-repeated exposure  No data available
Experience with human exposure  No data available

Aspiration toxicity  Not applicable

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish  No data available
Acute toxicity to daphnia and other aquatic invertebrates.  No data available
Toxicity to aquatic plants  No data available
Toxicity to microorganisms  No data available
Chronic toxicity to fish  No data available
Chronic toxicity to daphnia and other aquatic invertebrates.  No data available

Chronic Toxicity to aquatic plants  No data available

12.2 Persistence and degradability

**Abiotic degradation**  No data available

**Physical- and photo-chemical elimination**  No data available

**Biodegradation**  No data available

12.3 Bioaccumulative potential

**Partition coefficient: n-octanol/water**  No data available

**Bioconcentration factor (BCF)**  No data available

12.4 Mobility in soil

**Adsorption potential (Koc)**  No data available

**Known distribution to environmental compartments**  No data available

12.5 Results of PBT and vPvB assessment  Not applicable

12.6 Other adverse effects  No data available

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**Product Disposal**

- In accordance with local and national regulations.
- Refer to manufacturer/supplier for information on recovery/recycling.
- Dilute with plenty of water.
- Can be eliminated from water by precipitation.
- Filtrate the product and send the cake to a landfill for industrial waste.
- After neutralization, the filtrate can be discharged in the sewer.

**Waste Code**

- Environmental Protection Agency
Advice on cleaning and disposal of packaging

- Clean container with water.
- The empty and clean containers are to be reused in conformity with regulations.
- To avoid treatments, as far as possible, use dedicated containers.

SECTION 14: Transport information

DOT
not regulated

TDG
not regulated

NOM
not regulated

IMDG
not regulated

IATA
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

<table>
<thead>
<tr>
<th>Inventory Information</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico INSQ (INSQ)</td>
<td>- In compliance with the inventory</td>
</tr>
<tr>
<td>New Zealand. Inventory of Chemical Substances</td>
<td>- In compliance with the inventory</td>
</tr>
<tr>
<td>EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)</td>
<td>- If product is purchased from Solvay in Europe it is in compliance with REACH, if not please contact the supplier.</td>
</tr>
</tbody>
</table>

15.2 Federal Regulations

**US. EPA EPCRA SARA Title III**

**SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

No SARA Hazards

**Section 313 Toxic Chemicals (40 CFR 372.65)**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)
This material does not contain any components with a section 302 EHS TPQ.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)
This material does not contain any components with a SARA 302 RQ.

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)
This material does not contain any components with a section 304 EHS RQ.

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)
This material does not contain any components with a CERCLA RQ.

15.3 State Regulations

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16: Other information

NFPA (National Fire Protection Association) - Classification

- Health: 0 minimal
- Flammability: 0 minimal
- Instability or Reactivity: 0 minimal
- Special Notices: None

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

- Health: 0 minimal
- Flammability: 0 minimal
- Reactivity: 0 minimal
- PPE: Determined by User; dependent on local conditions

Further information

- Product evaluated under the US GHS format.

Date Prepared: 01/18/2018

- ACGIH American Conference of Governmental Industrial Hygienists
- OSHA Occupational Safety and Health Administration
- NTP National Toxicology Program
- IARC International Agency for Research on Cancer
- NIOSH National Institute for Occupational Safety and Health

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.