Material Safety Data Sheet

High Fusing Bondal Flux NP

Date of issue / Reference 09.02.2009 liprt
Replaces version of
Date of printing 12.02.2009 Sheet No. 1771 Version 1 Page 1 of 5

Company Ivoclar Vivadent, Inc.
175 Pineview Drive, Amherst NY 14228, USA

1 Commercial product name and supplier

1.1 Commercial product name / Designation

High Fusing Bondal Flux NP

1.2 Application / Use

Brazing Flux

1.3 Producer

Ivoclar Vivadent, Inc.
175 Pineview Drive, Amherst NY 14228, USA

1.4 Supplier

Ivoclar Vivadent, Inc.
175 Pineview Drive, Amherst NY 14228, USA
2785 Skymark Ave., Unit 1 Mississauga, ON L4W4Y3, Canada
MSDS prepared by Anderjeet Gulati. Tel. No. 716 691-0010

1.5 24 Hour Emergency Assistance

Emergency-Call USA- Infotrac: 1-800-535-5053
Emergency-Call Canada - Canutec: 1-613-996-6666
General MSDS Assistance
US: 1-800-533-6825
Canada: 1-800-263-8182

2 Composition

2.1 Chemical characterization

2.2 Hazardous components

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Component</th>
<th>NFPA</th>
<th>HMIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>85392-66-1</td>
<td>60 - 80 % Potassium hydroxo-fluoroborate</td>
<td>1</td>
<td>H 1</td>
</tr>
<tr>
<td>7440-42-8</td>
<td>1 - 5 % Boron</td>
<td>0</td>
<td>F 0</td>
</tr>
</tbody>
</table>

2.3 Further information

3 Hazards identification

Harmful if swallowed.
Irritating to respiratory system and skin.

4 First aid measures

4.1 Eye contact

Flush eyes with plenty of water (10-15 min.). Call a physician.

4.2 Skin contact

Wash thoroughly with water.
4.3 Ingestion
Remove contaminated clothing immediately.
Rinse mouth with plenty of water.
Give large amounts of water. If you feel unwell, seek medical advice (show this safety data sheet).
Adverse effects may be delayed.

4.4 Inhalation
Take into fresh air. If you feel unwell, seek medical advice (show this safety data sheet).

4.5 Further information

5 Fire-fighting measures

5.1 Suitable extinguishing media
No specific requirements.

5.2 Extinguishing media to avoid
None known

5.3 Flash point
not applicable

5.4 Ignition temperature
Not applicable.

5.5 Explosion limits
Lower:
Upper:
not applicable

5.6 Further information
Wear self-contained breathing apparatus.
Do not discharge extinguishing waters into streams, rivers and lakes.

6 Accidental release measures
Ensure adequate venting.
Clean up mechanically. Wash the area with soap and water. Do not allow to flow off into the drains or waters.
Prevent skin and eye contact.

7 Handling and storage

7.1 Handling
Only adequately trained personnel should handle this product.

7.2 Industrial hygiene
Avoid breathing dust.
Take off immediately all contaminated clothing. Wash clothing before reuse.
Usual hygienic measures are necessary.

7.3 Storage
Keep only in the original container in a cool well-ventilated place.
Store at 5-28 °C / 41-82 °F.

7.4 Place of storage
Store in a well ventilated, cool, dry area.

7.5 Fire- and explosion-protection
No specific requirements.
8 Exposure controls / Personal protection

8.1 Exposure controls  
No specific requirements.

8.2 Exposure limit values  
None established.

8.3 Occupational exposure controls

8.3.1 Respiratory protection  
When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator.  
In poorly ventilated areas, use self-contained breathing apparatus.

8.3.2 Hand protection  
Rubber gloves.

8.3.3 Eye protection  
Safety goggles.

8.3.4 Other  
None.

8.4 Environmental exposure controls  
Not relevant.

9 Physical and chemical properties

9.1 Appearance  
Paste

9.2 Colour  
brown

9.3 Odour  
odourless

9.4 Change of physical state  
Test method:

- Boiling point  
  932 °F  
  230 °F

9.5 Density  
1.6 g/cm³

9.6 Vapour pressure  
not applicable

9.7 Viscosity

9.8 Solubility  
water  
500 g/l (20°C)

9.9 pH  
5.5  
20 °C

9.10 Further information

- Part. coeff. n-octanol/water
- Evaporat. rate
10 Stability and reactivity

10.1 Thermal decomposition
None, if used in accordance to instructions.

10.2 Hazardous decomposition products
During thermal decomposition, toxic and irritation gases/fumes may be released.
Hydrogen fluoride.

10.3 Conditions / materials to avoid
Strong acids.

10.4 Further information
None.

11 Toxicological information

11.1 Acute toxicity
Oral LD50 for rats: 744 mg/kg

11.2 Subacute / Chronic toxicity
No data available.

11.3 Further information
None.

12 Ecological information

12.1 Ecotoxicity
No data available.

12.2 Mobility
No data available.

12.3 Persistence and degradability
No data available.

12.4 Bioaccumulative potential
No data available.

12.5 Further information
No data available.

13 Disposal considerations
Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.

14 Transport information

14.1 Transport at land
ADR --- RID ---

UN Number --- Kemler Number ---
Packing Group ---
Proper shipping name ---

14.2 Transport at sea
ADNR --- IMDG ---

UN Number ---
EMS --- MFAG ---
Packing Group ---
Proper shipping name ---
Marine pollutant
Material Safety Data Sheet

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14.3 Air transport

<table>
<thead>
<tr>
<th></th>
<th>ICAO / IATA-DGR</th>
<th>UN Number</th>
<th>Proper shipping name</th>
<th>Subsidiary Risk</th>
<th>Labels</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger airplane</td>
<td>Packing Instructions</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Cargo Airplane</td>
<td>Packing Instructions</td>
<td>---</td>
<td>---</td>
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<td>---</td>
</tr>
</tbody>
</table>

14.4 Further information

Product is not classified as a dangerous good for transport.

15 Regulatory information

15.1 National regulations

15.2 NFPA Storage

15.3 Further information

None.

16 Other information

No other information.

The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications do not have the meaning of guarantees on properties.

This safety data sheet has been generated with the safety database 'ChemManager'.
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