

SAFETY DATA SHEET

North American Version

FB® SODIUM PERCARBONATE

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Identification of the substance or mixture

Product name : FB® SODIUM PERCARBONATE
Product grade(s) : FB® 400
FB® 400C
FB® 700C
Molecular Weight : 314.06 g/mol

1.2. Use of the Substance/Mixture

Recommended use : - Bleaching agent
- Cleaning agent
- Oxidizing agents

1.3. Company/Undertaking Identification

Address : SOLVAY CHEMICALS, INC.
3333 RICHMOND AVENUE
HOUSTON TX 77098-3099
United States

1.4. Emergency and contact telephone numbers

Emergency telephone number : 1 (800) 424-9300 CHEMTREC® (USA & Canada)
01-800-00-214-00 (MEX. REPUBLIC)
Contact telephone number (product information) : US: +1-800-765-8292 (Product information)
US: +1-713-525-6500 (Product information)

2. HAZARDS IDENTIFICATION

2.1. Emergency Overview:

NFPA : H= 2 F= 0 I= 1 S= OX
HMIS : H= 2 F= 0 R= 1 PPE = Supplied by User; dependent on local conditions

General Information

Appearance : powder
Colour : white
Odour : odourless

Main effects

- Oxidising
- Contact with combustible material may cause fire.
- Harmful if swallowed.
- Risk of serious damage to eyes.

2.2. Potential Health Effects:

Inhalation

Eye contact

- Severe eye irritation
- Risk of serious damage to eyes.
- Symptoms: Redness, Lachrymation, Swelling of tissue.

Skin contact

- Prolonged skin contact may cause skin irritation.

Ingestion

- Severe irritation
- Symptoms: Nausea, Abdominal pain, Vomiting, Diarrhoea.

Other toxicity effects

- See section 11: Toxicological Information

2.3. Environmental Effects:

- See section 12: Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Sodium carbonate peroxyhydrate

CAS-No. : 15630-89-4

Concentration : **> 85.0 %**

Sodium carbonate

CAS-No. : 497-19-8

Concentration : **appr. 13.0 %**

Sodium silicate SiO₂/Na₂O

CAS-No. : 1344-09-8

Concentration : **appr. 1.5 %**

4. FIRST AID MEASURES

4.1. Inhalation

- Move to fresh air.
- If symptoms persist, call a physician.

4.2. Eye contact

- Call a physician or poison control centre immediately.
- In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).

4.3. Skin contact

- Remove and wash contaminated clothing before re-use.
- Wash off with plenty of water.
- If symptoms persist, call a physician.

4.4. Ingestion

- Rinse mouth with water.
- Do NOT induce vomiting.
- If accidentally swallowed obtain immediate medical attention.
- Oxygen or artificial respiration if needed.

If victim is conscious:

- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.

If victim is unconscious but breathing:

- Artificial respiration and/or oxygen may be necessary.

5. FIREFIGHTING MEASURES

5.1. Suitable extinguishing media

- Water
- Water spray

5.2. Extinguishing media which shall not be used for safety reasons

- None.

5.3. Special exposure hazards in a fire

- Oxidising
- Oxygen released in thermal decomposition may support combustion
- Contact with combustible material may cause fire.
- Contact with flammables may cause fire or explosions.
- Risk of explosion if heated under confinement.

5.4. Hazardous decomposition products

- Oxygen

5.5. Special protective equipment for firefighters

- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.
- Cool containers / tanks with water spray.

5.6. Other information

- Keep product and empty container away from heat and sources of ignition.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. Advice for non-emergency personnel

- Keep away from Incompatible products.

6.1.2. Advice for emergency responders

- Sweep up to prevent slipping hazard.

6.2. Environmental precautions

- Should not be released into the environment.
- Limited quantity
- Flush into sewer with plenty of water.
- Large quantities:
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and materials for containment and cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Do not mix waste streams during collection.
- Avoid dust formation.
- Treat recovered material as described in the section "Disposal considerations".
- All receiving equipment should be clean, vented, dry, labelled and made of material that is compatible with the product.

- Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

7.1. Handling

- Avoid dust formation.
- Ensure adequate ventilation.
- Keep away from heat and sources of ignition.
- Keep away from Incompatible products.
- Use only clean and dry utensils.
- Never return unused material to storage receptacle.
- Keep away from water.

7.2. Storage

- Keep in a dry place.
- Keep in a cool, well-ventilated place.
- Keep away from direct sunlight.
- Keep away from heat.
- Keep away from Incompatible products.
- The container must be used exclusively for the product.
- Keep in container fitted with safety valve or vent.
- Keep only in the original container.
- Store in a receptacle equipped with a vent.

7.3. Packaging material

- Stainless steel
- Polyethylene
- Paper + PE coating.

7.4. Other information

- Avoid dust formation.
- Refer to protective measures listed in sections 7 and 8.
- In industrial installations, apply the rules for the prevention of major accidents (consult an expert).
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- To avoid thermal decomposition, do not overheat.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Limit Values

Sodium carbonate peroxyhydrate

- SAEL (Solvay Acceptable Exposure Limit) 2006
TWA = 5 mg/m³
- US. ACGIH Threshold Limit Values
Remarks: none established

Sodium carbonate

- SAEL (Solvay Acceptable Exposure Limit) 2007
TWA = 10 mg/m³
- US. ACGIH Threshold Limit Values
Remarks: none established

Particles not otherwise specified (PNOS)

- US. ACGIH Threshold Limit Values 2007
time weighted average = 3 mg/m³
Remarks: as respirable particles

- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 02 2006
Permissible exposure limit = 5 mg/m³
Remarks: respirable dust fraction, All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
- US. ACGIH Threshold Limit Values 2010
time weighted average = 10 mg/m³
Remarks: Inhalable fraction
- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 02 2006
Permissible exposure limit = 15 mg/m³
Remarks: Total dust, All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
time weighted average = 15 millions of particles per cubic foot of air
Remarks: respirable dust fraction
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
time weighted average = 50 millions of particles per cubic foot of air
Remarks: Total dust
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
time weighted average = 5 mg/m³
Remarks: respirable dust fraction
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
time weighted average = 15 mg/m³
Remarks: Total dust
- US. OSHA Table Z-1-A (29 CFR 1910.1000) 1989
time weighted average = 5 mg/m³
Remarks: respirable dust fraction
- US. OSHA Table Z-1-A (29 CFR 1910.1000) 1989
time weighted average = 15 mg/m³
Remarks: Total dust

ACGIH® and TLV® are registered trademarks of the American Conference of Governmental Industrial Hygienists.
SAEL = Solvay Acceptable Exposure Limit, Time Weighted Average for 8 hour workdays. No Specific TLV STEL (Short Term Exposure Level) has been set. Excursions in exposure level may exceed 3 times the TLV TWA for no more than a total of 30 minutes during a workday and under no circumstances should they exceed 5 times the TLV TWA.

8.2. Engineering controls

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

8.3. Personal protective equipment

8.3.1. Respiratory protection

- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.
- Respirator with a dust filter

8.3.2. Hand protection

- Wear suitable gloves.
- Non-recommended materials: Leather, cotton
- Suitable material: PVC, Neoprene, Natural Rubber

8.3.3. Eye protection

- Chemical resistant goggles must be worn.

8.3.4. Skin and body protection

- Protective suit

8.3.5. Hygiene measures

- Use only in an area equipped with a safety shower.
- Eye wash bottle with pure water
- Handle in accordance with good industrial hygiene and safety practice for diagnostics.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information

| | |
|------------|-------------|
| Appearance | : powder |
| Colour | : white |
| Odour | : odourless |

9.2. Important health safety and environmental information

| | |
|---|--|
| pH | : from 10.4 - 10.6 <i>Concentration: 10.1 g/l</i> |
| Boiling point/boiling range | : <i>Remarks: not applicable</i> |
| Flash point | : <i>Remarks: not applicable</i> |
| Flammability | : <i>Remarks: The product is not flammable.</i> |
| Explosive properties | : <u><i>Explosion danger:</i></u> <i>Remarks: Not explosive</i> |
| Oxidizing properties | : <i>Remarks: Oxidising</i> |
| Vapour pressure | : <i>Remarks: not applicable</i> |
| Relative density / Density | : <i>Remarks: no data available</i> |
| Bulk density | : 950 - 1,200 kg/m ³ |
| Solubility(ies) | : Water 150 g/l <i>Temperature: 20 °C (68 °F)</i> |
| Partition coefficient: n-octanol/water | : <i>Remarks: not applicable</i> |
| Viscosity | : <i>Remarks: not applicable</i> |
| Vapour density | : <i>Remarks: not applicable</i> |

9.3. Other data

| | |
|------------------------------|---|
| Decomposition temperature | : <i>Remarks: Self-Accelerating decomposition temperature (SADT)</i> : : <i>Remarks: 50 kg</i> |
|------------------------------|---|

10. STABILITY AND REACTIVITY

10.1. Stability

- Potential for exothermic hazard
- Stable under recommended storage conditions.

10.2. Conditions to avoid

- Exposure to moisture.
- To avoid thermal decomposition, do not overheat.
- Keep at temperature not exceeding: 55 °C (131 °F)

10.3. Materials to avoid

- Water, Acids, Bases, Heavy metal salts, Reducing agents, Organic materials, Flammable materials, Combustible material

10.4. Hazardous decomposition products

- Oxygen

11. TOXICOLOGICAL INFORMATION

Toxicological data

Acute oral toxicity

- LD50, rat, 1,034 mg/kg

Acute inhalation toxicity

- LC0, 1 h, rat, > 4,580 mg/m³

Acute dermal irritation/corrosion

- LD 10, rabbit, > 2,000 mg/kg

Skin irritation

- rabbit, slight irritation

Eye irritation

- rabbit, Risk of serious damage to eyes.

Chronic toxicity

- no data available

Remarks

- Harmful if swallowed.
- Risk of serious damage to eyes.
- Irritating to respiratory system and skin.
- Risk of serious damage to eyes.
- Irritating to skin and mucous membranes

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

Acute toxicity

- Fishes, Pimephales promelas, LC50, 71 mg/l
- Fishes, Pimephales promelas, NOEC, 96 h, 7.4 mg/l
- Crustaceans, Daphnia pulex, EC50, 4.9 mg/l
- Crustaceans, Daphnia pulex, NOEC, 48 h, 2 mg/l

12.2. Mobility

- Air
- Air
Remarks: not applicable
- Water
Remarks: considerable solubility and mobility

- Soil/sediments
Remarks: non-significant adsorption

12.3. Persistence and degradability

Abiotic degradation

- Result: not applicable
- Water/soil
Result: significant hydrolysis

Biodegradation

- Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

12.4. Bioaccumulative potential

- Remarks: not applicable

12.5. Other adverse effects

- no data available

12.6. Remarks

- Hazard for the environment is limited due to product properties:
- . weak persistence of degradation products.
- Does not bioaccumulate.

13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products

- Dilute with plenty of water.
- Dispose of wastes in an approved waste disposal facility.
- Can be landfilled, when in compliance with local regulations.
- In accordance with local and national regulations.

13.2. Packaging treatment

- Clean container with water.
- Empty containers should be taken to an approved waste handling site for recycling or disposal.
- Uncleaned empty packaging
- Dispose of as unused product.
- In accordance with local and national regulations.

13.3. RCRA Hazardous Waste

- Listed RCRA Hazardous Waste (40 CFR 302) - No
- Unlisted RCRA Hazardous Waste (40 CFR 302) - Yes
- D001 (ignitable waste)

14. TRANSPORT INFORMATION

IATA-DGR

| | |
|--|----------------------------|
| UN number | UN 3378 |
| Class | 5.1 |
| Packing group | III |
| ICAO-Labels | 5.1 - Oxidizing substances |
| Proper shipping name: SODIUM CARBONATE PEROXYHYDRATE | |

IMDG

| | |
|-----------|---------|
| UN number | UN 3378 |
| Class | 5.1 |

Packing group III
 IMDG-Labels 5.1 - Oxidizing substances
 EmS F-A
 S-Q

Proper shipping name: SODIUM CARBONATE PEROXYHYDRATE

U.S. Dept of Transportation

UN number UN 3378
 Class 5.1
 Packing group III
 Label 5.1 - Oxidizing substances
 Proper shipping name: SODIUM CARBONATE PEROXYHYDRATE

Canada (TDG)

UN number UN 3378
 Class 5.1
 Packing group III
 Label 5.1 - Oxidizing substances
 Proper shipping name: SODIUM CARBONATE PEROXYHYDRATE

Mexico (NOM-002-SCT)

UN number UN 3378
 Class 5.1
 Packing group III
 Label 5.1 - Oxidizing substances

15. REGULATORY INFORMATION

15.1. Inventory Information

| | | |
|--|-----|-------------------------------|
| Toxic Substance Control Act list (TSCA) | : - | In compliance with inventory. |
| Australian Inventory of Chemical Substances (AICS) | : - | In compliance with inventory. |
| Canadian Domestic Substances List (DSL) | : - | In compliance with inventory. |
| Inventory of Existing Chemical Substances (China) (IECS) | : - | In compliance with inventory. |
| Korean Existing Chemicals Inventory (KECI (KR)) | : - | In compliance with inventory. |
| EU list of existing chemical substances (EINECS) | : - | In compliance with inventory. |
| Japanese Existing and New Chemical Substances (MITI List) (ENCS) | : - | In compliance with inventory. |
| Philippine Inventory of Chemicals and Chemical Substances (PICCS) | : - | In compliance with inventory. |
| New Zealand Inventory (in | : - | In compliance with inventory. |

preparation) (NZ)

15.2. Other regulations

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

- not regulated.

SARA Hazard Designation (SARA 311/312)

- Fire Hazard: Yes.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

- not regulated.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

- not regulated.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

- yes.

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

- not regulated.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

- not regulated.

16. OTHER INFORMATION

Ratings :

NFPA (National Fire Protection Association)

Health = 2 Flammability = 0 Instability = 1 Special =OX

HMIS (Hazardous Material Information System)

Health = 2 Fire = 0 Reactivity = 1 PPE : Supplied by User; dependent on local conditions

Further information

- General revision
- Distribute new edition to clients

Material Safety Data Sheets contain country specific regulatory information; therefore, the MSDS's provided are for use only by customers of the company mentioned in section 1 in North America. If you are located in a country other than Canada, Mexico or the United States, please contact the Solvay Group company in your country for MSDS information applicable to your location.

The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. (Unless noted to the contrary, the technical information applies only to pure product).

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