## SAFETY DATA SHEET

(INFORMATION FORM FOR CHEMICALS DATA)

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

- **Trade name**: Multi Absorber Medisorb EF
- **Company product code**: REF. M1173311
- **Reach registration number**

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

**The uses of the chemical**

The GE Healthcare Medisorb EF absorbers are disposable products intended for use with the GE Healthcare Advanced Breathing System (later ABS), the GE Healthcare EZchange manifold, the GE Healthcare Compact Block and GE Healthcare Compact Block II (later Compact Block) to remove CO2 from breathing gases. Absorbers should only be used with air, oxygen, nitrous oxide, halothane, enflurane, isoflurane, desflurane and sevoflurane.

- **Classification of economic activities (NACE)**: 246
- **Use categories (UC62)**: 1
- **The chemical can be used by the general public**: □
- **The chemical is used by the general public only**: □

#### 1.3 Details of the supplier of the safety data sheet

- **Manufacturer, importer, other undertaking**
  - **Street address**: Kuortaneenkatu 2
  - **Postcode and post office**: 00510 Helsinki
  - **Post-office box**: PL 900
  - **Postcode and post office**: 00031 GE
  - **Telephone number**: +358 (0)10 394 11
  - **Telefax**: +358 (0)9 146 3310
  - **E-mail address**: @ge.com
  - **Finnish Business ID (Y code)**: GE Healthcare Finland Oy 1897064-6

#### 1.4 Emergency telephone number

Please contact 112 or the Emergency Centre in your own country or National Chemicals Emergency Centre, OX14 3 DE

24 hour emergency number +44 (0) 1865 407333

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Irritant**

#### 2.2 Label elements

- **Xi**
- **R37**: Irritating to respiratory system.
- **R38**: Irritating to skin.
- **R41**: Risk of serious damage to eyes.
- **S26**: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **S39**: Wear eye/face protection.
2.3 **Other hazards**
Test data of EU approved in-vitro test for the classification of corrosive and irritant material shows the preparation to be an irritant. For the wording of the listed risk phrases see above.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS/EC number and the registration number</th>
<th>Name of the ingredient</th>
<th>Concentration</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium Hydroxide</td>
<td>&lt;1% (w/w)</td>
<td>C, R35 Causes severe burns</td>
</tr>
<tr>
<td>1305-62-0</td>
<td>Calcium Hydroxide</td>
<td>&gt;75% (w/w)</td>
<td>Xi; R36 Irritating to eyes</td>
</tr>
</tbody>
</table>

### SECTION 4: FIRST AID MEASURES

4.1 **Description of first aid measures**
Remove from exposure. Obtain medical attention
Drench with clean water. Obtain medical attention if skin becomes inflamed.
Irrigate thoroughly with clean water. Obtain medical attention.
Wash out mouth thoroughly. Obtain medical attention.

4.2 **Most important symptoms and effects, both acute and delayed**
Skin irritation.
Eye irritation
May cause severe effects to eyes
Irritation in respiratory system

4.3 **Indication of any immediate medical attention and special treatment needed**

### SECTION 5: FIREFIGHTING MEASURES

5.1 **Extinguishing media**
Water, Foam, CO2, powder are all suitable.

5.2 **Special hazards arising from the substance or mixture**
Material is non-combustible. Packaging may be combustible.

5.3 **Advice for firefighters**
Breathing apparatus may be needed.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures**
Avoid inhaling dust. Avoid skin and eye contact.

6.2 **Environmental precautions**
No hazard.

6.3 **Methods and material for containment and cleaning up**
Contain material. Sweep or vacuum up.

6.4 **Reference to other sections**

### SECTION 7: HANDLING AND STORAGE

7.1 **Precautions for safe handling**

7.2 **Conditions for safe storage, including any incompatibilities**
Store in a clean, dry environment at a temperature range 0°C/+32°F to+35°C/+95°F.
Avoid freezing and direct sunlight. Keep containers closed.
Protect the packages from physical damage and water.

7.3 **Specific end use(s)**
Restrictions on use
Medisorb is a CO2 absorbent intended for use with anesthesia systems.
Medisorb should only be used with air, oxygen, heliox, nitrous oxide, halothane, enflurane, isoflurane, desflurane and sevoflurane.
Before using other anesthetic agents, consult the manufacturer of the anesthetic agent to determine whether or not it is suitable.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

**National occupational exposure limit values**

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA/8h</th>
<th>STEL (15min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td></td>
<td>2 mg/m3</td>
</tr>
<tr>
<td>Calcium Hydroxide (CAS 1305-62-0)</td>
<td>5 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

#### 8.2 Exposure controls

**Appropriate engineering controls**

**Eye/face protection**
- Nuisance dust mask recommended.

**Skin protection**
- General purpose rubber gloves. Wash after skin contact.

**Hand protection**
- General purpose rubber gloves

**Respiratory protection**
- Nuisance dust mask recommended.

**Thermal hazards**

**Environmental exposure controls**

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White or colored solids</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>-</td>
</tr>
<tr>
<td>pH</td>
<td>&lt;12.5</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>-</td>
</tr>
<tr>
<td>Flash point</td>
<td>-</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>-</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>-</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>-</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>-</td>
</tr>
<tr>
<td>Vapour density</td>
<td>-</td>
</tr>
<tr>
<td>Relative density</td>
<td>~0.9 g/cm³</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>slight in water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>-</td>
</tr>
</tbody>
</table>
9.2 Other information

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical stability
Converts to Calcium and Sodium Carbonates when exposed to air.

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid
Material is stable. Converts to Calcium and Sodium Carbonates when exposed to air.
Heat is generated when exposed to acids.

10.5 Incompatible materials
Avoid contact with Chloroform or Trichloroethylene.

10.6 Hazardous decomposition products

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD/LC50 values relevant for classification:
Sodium Hydroxide \( \text{LD(lo) = 500mg/kg rbt} \)
Calcium Hydroxide \( \text{LD(50) > 7000mg/kg rat} \)

Skin corrosion/irritation
Skin irritation
Serious eye damage/irritation
Strong irritant with the danger of severe eye injury.
Respiratory or skin sensitisation
May cause respiratory irritation

Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

STOT-single exposure
STOT-repeated exposure
Repeated or prolonged skin contact may cause chronic dermatitis.

Aspiration hazard
-

Other information
Swallowed
Harmful by ingestion.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
No risk of prolonged damage to animal or plant life. Converts to naturally occurring minerals.

12.2 Persistence and degradability
No risk of prolonged damage to animal or plant life. Converts to naturally occurring minerals.

12.3 Bioaccumulative potential
Does not accumulate in organisms. No risk of prolonged damage to animal or plant life. Converts to naturally occurring minerals.

12.4 Mobility in soil
No risk of prolonged damage to animal or plant life. Converts to naturally occurring minerals.

12.5 Results of PBT and vPvB assessment
No risk of prolonged damage to animal or plant life. Converts to naturally occurring minerals.

12.6 Other adverse effects
No risk of prolonged damage to animal or plant life. Converts to naturally occurring minerals.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
PRODUCT:
European waste catalogue:
06 00 00 WASTES FROM INORGANIC CHEMICAL PROCESSES
06 02 00 wastes from the MFSU of bases
06 02 01 calcium hydroxide

UNCLEANED PACKAGING
Recommendation:
Disposal of absorbent, containers and packaging must be made in accordance with local official regulations. E.g. incineration.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number
None

14.2 UN proper shipping name
None

14.3 Transport hazard class(es)
None

14.4 Packing group
none

14.5 Environmental hazards
None

14.6 Special precautions for user
None

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
None
SECTION 15: REGULATORY INFORMATION

15.1  Safety, health and environmental regulations/legislation specific for the substance or mixture

X1: Irritant
R37: Irritating to respiratory system.
R38: Irritating to skin.
R41: Risk of serious damage to eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S39: Wear eye/face protection.

15.2  Chemical safety assessment
Test data of EU approved in-vitro test for the classification of corrosive and irritant material shows the preparation to be an irritant. For the wording of the listed risk phrases see above

SECTION 16: OTHER INFORMATION

X1: Irritant
C: Corrosive. Product contain Sodium hydroxide, but test data of EU approved in-vitro test for the classification of corrosive and irritant material shows the preparation to be an irritant.

R35 Causes severe burns. Product contain Sodium hydroxide, but test data of EU approved in-vitro test for the classification of corrosive and irritant material shows the preparation to be an irritant.
R36 Irritating to eyes (not mandatory as R41 Risk of serious damage to eyes in labeling).
R37: Irritating to respiratory system.
R38: Irritating to skin.
R41: Risk of serious damage to eyes.

S2  Keep out of reach of children (not mandatory, product not in general public use).
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37 Wear suitable gloves (recommended, not mandatory for irritant product).
S39: Wear eye/face protection.
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). -(recommended, not mandatory for irritant product)

Further information
Ensure all national/local regulations are observed.
Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
Details given in this document are believed to be correct at the time of going press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

Sources of key data used
Material safety data sheet of Sofnolime Solo dated 18th of May 2012. Sofnolime Solo is a trademark of Molecular Products Limited