** *Section 1 - IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING* * *

1.1 Product Identifier:
Material Name: BARIUM CARBONATE

Synonyms
CARBONIC ACID, BARIUM SALT; BARIUM CARBONATE (BaCO3); BARIUM MONOCARBONATE; BARIUM CARBONATE (1:1); CARBONIC ACID, BARIUM SALT (1:1); C.I. PIGMENT WHITE 10; C.I. 77099; B-29; B-30; BaCO3; RTECS: CQ8600000

Chemical Family
inorganic, salt

Substance Registration Numbers(s)
REACH Pre-registration Number: 01-2119489177-25-0014

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Identified Uses
industrial

Uses Advised Against
none

1.3 Details of the supplier of the safety data sheet

BassTech Europe BVBA Phone: +32 (0) 14 38 91 91
Turnhoutsebaan 171 bus 120 Fax: +32 (0) 14 38 91 99
2480 Dessel, Belgium Email: info@basstechintl.com

1.4 Emergency Telephone Number
CHEMTREC: 1-800-424-9300 (U.S.); +1-703-527-3387 (International: Call Collect)

** *Section 2 - HAZARDS IDENTIFICATION* * *

2.1 Classification of the Substance or Mixture

Classification according to Regulation (EC) No 1272/2008
Acute Toxicity (Oral), Category 4

Classification according to Directives 67/548/EEC and/or 1999/45/EC
Xn Harmful
R22 Harmful if swallowed.
S24/25 Avoid contact with skin and eyes.

2.2 Label Elements

Labeling according to Regulation (EC) 1272/2008/EC:

Symbol(s)

Signal Word
WARNING
Hazard Statement(s)
Harmful if swallowed.

Precautionary Statement(s)
Prevention
Wash thoroughly after handling. Do not eat, drink, or smoke when using this product.

Response
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Storage
None

Disposal
Dispose of material in accordance with all local, regional, national and international regulations.

Labelling according to Directive 67/548/EEC and/or 1999/45/EC
Xn Harmful
R22 Harmful if swallowed.
S24/25 Avoid contact with skin and eyes.

2.3 Other Hazards
None

** Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS **

<table>
<thead>
<tr>
<th>CAS EC No Registration No</th>
<th>Component Synonyms</th>
<th>67/548 EEC (DSD)</th>
<th>1272/2008 (CLP)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>513-77-9</td>
<td>BARIUM CARBONATE</td>
<td>Xn; R:22</td>
<td>Acute Tox. 4</td>
<td>99.0</td>
</tr>
<tr>
<td>208-167-3</td>
<td>--</td>
<td></td>
<td>(Oral) H302</td>
<td></td>
</tr>
</tbody>
</table>

Component Related Regulatory Information
This product may be regulated, have exposure limits or other information identified as the following: Barium salts, with the exception of barium sulphate, barium sulphide under the conditions laid down in Annex II, Part 1 and lakes salts and pigments prepared from the coloring agents listed with the reference '5' in Annex II, Part 2 and Annex IV, Part 2, Barium compounds, n.o.s..

** Section 4 - FIRST AID MEASURES **

4.1 Description of First Aid Measures

Inhalation
If adverse effects occur, remove to uncontaminated area. Get immediate medical attention.

Skin
Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eyes
Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion
If swallowed, drink plenty of water, do NOT induce vomiting. Get immediate medical attention. Do not give anything by mouth to unconscious or convulsive person.

4.2 Most Important Symptoms and Effects, both Acute and Delayed

Acute
No information on significant adverse effects.
Delayed
No information on significant adverse effects.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians
No special instructions.

Antidote
sodium sulfate solution, oral, gastric tube; potassium.

** Section 5 - FIRE FIGHTING MEASURES **

5.1 Extinguishing Media
Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media
None known.

5.2 Special Hazards Arising from the Substance or Mixture
Negligible fire hazard.

5.3 Advice for Firefighters

Fire Fighting Measures
Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Protective Equipment and Precautions for Firefighters
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

** Section 6 - ACCIDENTAL RELEASE MEASURES **

6.1 Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment.

6.2 Environmental Precautions
Keep out of water supplies and sewers.

6.3 Methods and Material for Containment and Cleaning up
Collect spilled material in appropriate container for disposal. Avoid generating dust. Clean up residue with a high-efficiency particulate filter vacuum.

6.4 Reference to Other Sections
See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

** Section 7 - HANDLING AND STORAGE **

7.1 Precautions for Safe Handling
Use methods to minimize dust. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling.

7.2 Conditions for Safe Storage, Including any Incompatibilities
Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

7.3 Specific End Use(s)
For industrial use only.
**Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

8.1 Control Parameters

Component Exposure Limits

**BARIUM CARBONATE (513-77-9)**

- Finland: 0.5 mg/m³ TWA
- Germany (DFG): 0.5 mg/m³ TWA MAK (inhalable fraction, as Ba, related to Barium compounds, n.o.s.)
  4 mg/m³ Peak (as Ba, inhalable fraction, related to Barium compounds, n.o.s.)

**Biological Limit Values**

Biological Limit Values have not developed for any of component(s) of this material.

**Derived No Effect Levels (DNELs)**

No DNELs available.

**Predicted No Effect Concentrations (PNECs)**

No PNECs available.

**Ventilation**

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

8.2 Exposure Controls

**Eye / Face Protection**

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin Protection**

Wear appropriate chemical resistant clothing.

**Glove Recommendations**

Wear appropriate chemical resistant gloves.

**Respiratory Protection**

If engineering controls do not maintain exposure to an acceptable level, respiratory protection may be needed.

**Environmental Exposure Controls**

No special instructions.

**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State: Solid</th>
<th>Appearance: Not available</th>
<th>Physical Form: solid or powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color: white</td>
<td>Odor: odorless</td>
<td>Odor Threshold: Not available</td>
</tr>
<tr>
<td>Taste: tasteless</td>
<td>Melting Point: 811 °C</td>
<td>Decomposition: 1300 °C</td>
</tr>
<tr>
<td>Boiling Point: Not applicable</td>
<td>Vapor Pressure: ≤0.1 mmHg @ 20 °C</td>
<td>Vapor Density (air = 1): Not applicable</td>
</tr>
<tr>
<td>Density: Not available</td>
<td>Specific Gravity (water = 1): 4.43</td>
<td>Coeff. Water/Oil Dist: Not available</td>
</tr>
<tr>
<td>Water Solubility: 0.0022 %</td>
<td>Molecular Weight: 197.34</td>
<td>Molecular Formula: Ba-C-O3</td>
</tr>
</tbody>
</table>
10.2 Chemical Stability
Stable at normal temperatures and pressure.

10.3 Possibility of Hazardous Reactions
Will not polymerize.

10.4 Conditions to Avoid
Avoid generating dust.

10.5 Incompatible Materials
halogens, combustible materials

10.6 Hazardous Decomposition Products
oxides of barium, oxides of carbon

**Section 11 - TOXICOLOGICAL INFORMATION**

11.1 Information on Toxicological Effects

Acute and Chronic Toxicity

Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:

**BARIUM CARBONATE (513-77-9)**
Oral LD50 Rat 418 mg/kg

Irritation / Corrosivity
Dust may cause irritation of the nose and throat, skin and eyes.

Respiratory Sensitization
No data available.

Skin Sensitization
No data available.

Germ Cell Mutagenicity
No data available.

Carcinogenicity
Component Carcinogenicity
None of this product's components are listed by IARC or DFG.

Reproductive Toxicity
Reproductive effects have been reported in animals.

Specific Target Organ Toxicity - Single Exposure
None

Specific Target Organ Toxicity - Repeated Exposure
None

Aspiration Hazard
No data available.

**Section 12 - ECOLOGICAL INFORMATION**

12.1 Toxicity
This material is believed to be non-toxic to aquatic life.

Component Analysis - Aquatic Toxicity
No LOILI ecotoxicity data are available for this product's components.

12.2 Persistence and Degradability
No data available.
12.3 Bioaccumulative Potential
No data available.

12.4 Mobility in Soil
No data available.

12.5 Results of PBT and vPvB Assessment
No information available.

EU - Interim Strategy for Management of PBT and vPvB Substances (PBT Assessments)
No components of this material are listed.

12.6 Other Adverse Effects
No additional information is available.

** **Section 13 - DISPOSAL CONSIDERATIONS* **

13.1 Waste Treatment Methods
Dispose in accordance with all applicable regulations.

** **Section 14 - TRANSPORT INFORMATION* **

International Bulk Chemical Code
This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

** **Section 15 - REGULATORY INFORMATION* **

15.1 Safety, Health and Environmental Regulations / Legislation Specific for the Substance or Mixture
EU - REACH (1907/2006) - Annex XIV List of Substances Subject to Authorisation
No components of this material are listed.

EU - REACH (1907/2006) - Article 59(1) Candidate List of Substances Subject to Authorisation
No components of this material are listed.

EU - REACH (1907/2006) - Annex XVII Restrictions of Certain Dangerous Substances, Mixtures and Articles
No components of this material are listed.

EU - REACH (1907/2006) - Potential Substances of Very High Concern
No components of this material are listed.

UK Regulations
No component(s) of this material are listed on the List of Chemicals of Concern or the Dangerous Substances in Water (Red List).

Germany Regulations
Germany Water Classification
BARIAUM CARBONATE (513-77-9)
ID Number 781, not considered hazardous to water

Denmark Regulations
Environmental Protection Agency List of Undesirable Substances
No components of this material are listed.

15.2 Chemical Safety Assessment
No chemical safety assessment has been carried out for the substance/mixture.

** **Section 16 - OTHER INFORMATION* **

16.1 Indication of changes
Revision 1.0000, 01 November 2011: New SDS.
16.2 Key / Legend
ADR - European Road Transport; BOD - Biochemical Oxygen Demand; C - Celsius; CAS - Chemical Abstracts Service; CLP - Classification, Labelling and Packaging; DFG - Deutsche Forschungsgemeinschaft; EC50 - Effective Concentration, 50%; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; Kow - Octanol/water partition coefficient; LD50 - Lethal Dose, 50%; LEL - Lower Explosive Limit; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; REACH - Substances Subject to Authorisation; RID - European Rail Transport; STEL - Short-term Exposure Limit; TWA - Time Weighted Average; UEL - Upper Explosive Limit

16.3 Key literature references and sources for data
Available upon request

16.4 Methods used for classification of mixture according to Regulation (EC) No 1272/2008
Available upon request

16.5 Full text of R phrases in Section 3
Component Analysis
H302 Harmful if swallowed.

R22 Harmful if swallowed.

16.6 Training Advice
Read Material Safety Data Sheet Before Using Product.

16.7 Other Information
Disclaimer: Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

End of Sheet BTI02340_EU