**SAFETY** DATA SHEET **53**

# PURE GLASS STANDARD + REAGENT GLASS

## 1 IDENTIFICATION OF THE MIXTURE AND THE COMPANY

### 1.1 Product identifier

| | |
|---|---|
| Product name | PURE GLASS STANDARD |

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

| | |
|---|---|
| Description/Application | RESIN COATING |

### 1. 3 Details of the supplier of the safety data sheet

| | |
|---|---|
| Name: | BERICALCE di De Toni Michael |
| Full address: | Via O. da Pordenone n.18 - 36100 Vicenza - Italia |
| Phone: | +39 0444 929102 +39 0444 923317 |
| Fax: | +39 0444 929102 |
| E-mail address of the competent person responsible to the Safety Data Sheet | info@bericalce.it |

### 1.4 Emergency telephone number

| | |
|---|---|
| For urgent inquiries refer to | SANITARY EMERGENCY |

## 2. HAZARD IDENTIFICATION

### 2.1 Classification of the substance or mixture

The product is classified as hazardous according to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adaptationxs. The product thus requires a safey data sheet complies with the provisions of Regulation (EC) n. 1907/2006 and subsequent amendments. Furtherinformation on the risks to health and/or the environment are given in sec. 11 and 12 of this sheet.

Hazard classification and indication:
Dangerous for the aquatic environment,
chronic toxicity, category 2 H411 Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

Danger labeling under Regulation (EC) 1272/2008 (CLP) and subsequent amendments.

Warnings: -

| | |
|---|---|
| Hazard: | |
| R 36/38 | Irritating to eyes and skin. |
| R 43 | May produce an allergic reaction. |
| R 51/53 | Toxic to aquatic life with long lasting effects. |
| Safety advice: | |
| P273 | Do not dispose of in the environment. |
| P391 | Collect spilled material. |
| P501 | Dispose of contents and container in an approved and permitted incinerator, or other thermal destruction device. |

**2.3 Other dangers**

Based on available data, the product does not contain any PBT or vPvB substances as more than 0,1%

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

**3.1 Substance**

Contained substances dangerous to health in accordance with Regulation (EC) 1907/2006 (REACH) and Directive 67/548 / EEC and subsequent adjustments or for which there are recognized exposure limits.

**3.2 Mixtures**

| Cas | Name | % | Symbol | R phrases |
|---|---|---|---|---|
| 25068-38-6 | EPOXY RESIN (NUMBER AVERAGE MW <= 700) | <40 | Xi | R36 / 38, R43, R51 / 53 |
| 28064-14-4 | EPOXY RESIN (NUMBER AVERAGE MW <= 700) | <40 | Xi | R36 / 38, R43, R51 / 53 |

**3.3 Description**

Solvent free epoxy formulation.
Epoxy resins (average molecular weight ≤ 700)
REG / CAS / EC: 01-2119456619-26-0002 / 25068-38-6 / 500-033-5 / 28064-14-4 / 500-108-2
Hazard class: Aquatic Chronic - Category 2 - risk code H411
Risk class: Skin sens - Category 1 - risk code H317
Risk class: Skin Corr./Irrit. - Category 2 - risk code H315
Risk class: Eye Damn./Irrit. - Category 2 - risk code H319
The full text of the hazard indications (H) is shown in section 16 of the sheet.

## 4 FIRST AID MEASURES

**4.1** The symptoms of poisoning by ingestion can appear after many hours, for this reason it is necessary surveillance of a doctor within 48 hours of the accident.
Do not give liquids or induce vomiting if the patient is unconscious or has seizures.

**Description of first aid measures**

EYES: No known significant effects or critical hazards. Negative symptoms may include the following pain or irritation, tearing, redness.
SKIN: Once sensitized, a severe allergic reaction may occur following a subsequent one exposure to very low levels. Adverse symptoms may include the following: irritation, redness.
INGESTION: No known significant effects or critical hazards. No specific data.
INHALATION: No known significant effects or critical hazards. No specific data.

**4.2 Most important symptoms and effects, both acute and delayed.**

For symptoms and effects due to the substances contained, see section 11.

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

Follow the doctor's instructions.

## 5 FIREFIGHTING MEASURES

### 5.1 Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

CO2, powder or water spray. Extinguish large fires with alcohol resistant foam.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular

### 5.2 Special hazards arising from the substance or mixture

HAZARDS CAUSED BYEXPOSURE IN THE EVENTOF FIRE

Do not breathe combustion products.

### 5.3 Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the cointainers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contamined water used for extinction and the remains of the fire according to applicable regulations.

EQUIPMENT

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## 6 ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures. No action shall be taken involving any personal risk or without appropriate training. Evacuate the surrounding areas. Prevent the entry of extraneous and unprotected personnel. Do not touch or walk on the spilled material. Provide adequate ventilation. Wear a suitable respirator in case of inadequate ventilation. Wear appropriate protective equipment.

### 6.2 Environmental precautions

Avoid spillage and runoff of spilled material and contact with soil, waterways, drains and sewers. Inform the competent authorities if the product has caused environmental pollution (sewers, waterways, earth or air). Water polluting material. It can be harmful to the environment if released in large quantities.

### 6.3 Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Circumscribe and collect any spills with non-combustible absorbent material, such as sand, earth, vermiculite, diatomite and dispose of the product in a container in accordance with current legislation (see section 13). A contaminated absorbent material can cause the same danger as the spilled product.

### 6.4 Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## 7 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet.

Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

### 7.2 Conditions for safe storage, including any incompatibilities

Store only in the original container. Keep container closed, in a well-ventilated place, away from direct sunlight Keep containers away from any incompatible materials, see section 10 for details.

### 7.3 Specific end use(s)

Information not available.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

| | | |
|---|---|---|
| DEU | Deutschland | MAK-und BAT-Werte-Liste 2012 |
| ESP | España | INSHT - Límites de exposición profesional para agentes químicos en España 2015 |
| FRA | France | JORF n°0109 du 10 mai 2012 page 8773 texte n° 102 |
| GBR | United Kingdom | EH40/2005 Workplace exposure limits |
| HUN | Magyarország | 50/2011. (XII. 22.) NGM rendelet a munkahelyek kémiai biztonságáról |
| ITA | Italia | Decreto Legislativo 9 Aprile 2008, n.81 |
| POL | Polska | ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r |
| PRT | Portugal | Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diaro da Republica I 26; 2012-02-06 |
| EU | OEL EU | Direttiva 2009/161/UE; Direttiva 2006/15/CE; Direttiva 2004/37/CE; Direttiva 2000/39/CE. |
| | TLV-ACGIH | ACGIH 2016 |

### 8.2 Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

**8.3 Components whose limit values must be kept under control in the workplace**

| CAS number | TWA | | STEL | | MAXIMUM LIMIT | |
|---|---|---|---|---|---|---|
| | ppm | mg / m³ | ppm | mg / m³ | ppm | mg / m³ |
| 25068-38-6 | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |
| 28064-14-4 | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |

Further indications:
Good general ventilation in the workplace.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

| | |
|---|---|
| Appearance | Liquid |
| Colour | White |
| Odour | Characteristic |
| Odour threshold | Not available |
| pH | Not available |
| Melting point / freezing point | Not available |
| Initial boiling point | Decomposes before boiling. |
| Boiling range . | Not available |
| Flash point | Not available |
| Evaporation rate | Not available |
| Flammability (solid, gas) | Not available |
| Lower inflammability limit | Not available |
| Upper infiammability limit | Not available |
| Lower explosive limit | Not available |
| Upper explosive limit | Not available |
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | Not available |
| Solubility | Not available |
| Partition coefficient:: n-octanol/water | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| Viscosity | 6-10 Pas |
| Explosive properties | Not available |
| Oxidising properties | Not available |

**9.2 Other information**

Not available

## 10 STABILITY AND REACTIVITY

**10.1 Reactivity**

Reacts with strong oxidizing agents. Polymerizes, with exothermic reaction, in the presence of Amines, Mercaptans, and Lewis Acids, at room temperature and above. Polymerizes in the presence of caustic soda. It reacts exothermically with bases (e.g. caustic soda) ammonia, primary and secondary amines, alcohols, water and acids.

**10.2 Chemical stability**

The product is stable under normal conditions of use and storage.

**10.3 Possibility of hazardous reactions**

No dangerous reactions are known, however, avoid contact with oxidizing agents, acids, amines and bases.

**10.4 Conditions to avoid**

Information not available.

**10.5 Incompatible materials**

Information not available.

**10.6 Hazardous decomposition products**

Due to thermal decomposition or in case of fire, potentially harmful gases and vapors can be released.

## 11 TOXICOLOGICAL INFORMATION

**11.1 Information on toxicological effects**

INHALATION: no applicable toxicity data, no significant effects or critical hazards known.

11.2 LD / LC50 values detected for classification

| Components | | Type | Species |
|---|---|---|---|
| EPOXY RESIN | Oral | > 2.100mg / Kg. | Rat |
| (NUMBER AVERAGE | Dermal | > 2.100mg / Kg. | Rabbit |
| MW <= 700) | Inhalation | n.d. mg / l / 4h. | Rat |

PRIMARY IRRITABILITY: n.d.
ON THE SKIN: Irritating, obviously in the uncured liquid state.
ON THE EYES: Irritating, obviously in the uncured liquid state.
SENSITIZATION: May cause sensitization in contact with skin.

**11.3 Further toxicological data**

The product according to the calculation method of the general Community directive on the classification of preparations in the last valid version, presents the following risks: Irritant (in liquid form).
NB. THE DATA ABOVE INDICATED IS RELATIVE TO THE PURE PRODUCT RECONDUCIBLE TO THE INDICATED CAS NUMBERS; HOWEVER, IT IS INFORMED THAT IN THE CASE OF THE SPECIFIC FORMULATIONS SUBJECT TO THIS SAFETY DATA SHEET THESE VALUES MUST BE CONSIDERED TO BE PARTICULARLY RESTRICTIVE AS THE PRODUCT IS NOT LOCATED IN THE "PURE" CONDITION BUT THEY HAVE A MAXIMUM PERCENTAGE OF 80% AS A BINDER, SO REASONABLE TO STATE AS EXPOSURES AND EFFECTS ARE SHORT AND LONG-TERM THERE ARE LESS ESTRICTED.

## 12 ECOLOGICAL INFORMATION

No specific information is available on the preparation as such. For more information see specific instructions in paragraph 3. Use the product in compliance with good working rules: avoid dispersion of contaminated product and tools in the environment.

### 12.1 Toxicity

Epoxy resins (average molecular weight ≤ 700)

Acute and prolonged toxicity to fish

LC50, Oncorhynchus mykiss (Rainbow trout), Semi-static test, 96h: 2 mg/l

Acute toxicity for aquatic invertebrates

CE50, Daphnia magna (Large water flea), Static test, 48h, immobilization: 1.8 mg/l

Toxicity for aquatic plants

CE50r, Scenedesmus capricornutum (freshwater algae), Static test, 48h, Growth rate inhibition, 72h: 11 mg/l

Toxicity for micro-organisms

IC50; Bacteria, 18h:> 4.6 mg/l

Chronic toxicity for aquatic invertebrates

Water flea Daphnia magna, Semi-static test, 21 d, number of descendants, NOEC: 0.3 mg/l

### 12.2 Persistence and degradability

Epoxy resins (average molecular weight ≤ 700)

The level of biodegradation in a "strengthened" OECD 301F study was 5% within the 28-day contact period. Biodegradation reached 6-12% after 28 days of contact in an OECD test n. study 301B.

Therefore, BADGE is not readily biodegradable under the conditions applied in these tests.

### 12.3 Bioaccumulative potential

Epoxy resins (average molecular weight ≤ 700)

The OASIS CATALOGIC QSAR Estimated Bioconcentration Factor of 3-31 and Lg Pow of 3.24 @ 25 C indicate a low potential for bioaccumulation in aquatic organisms.

### 12.4 Mobility in soil

Epoxy resins (average molecular weight ≤ 700)

Il KOCWIN QSAR estimated absorption / desorption, log Koc = 2.65 coefficient suggests a moderate absorption of biological matter.

### 12.5 Results of PBT and vPvB assessment

Based on the available data, the product does not contain PBT or vPvB substances in a percentage higher than 0.1%.

Epoxy resins (average molecular weight ≤ 700)

Based on low bioaccumulation potential and EC50 / LC50 values of> 0.1 mg / l BADGE is not PBT.

### 12.6 Other adverse effects

Epoxy resins (average molecular weight ≤ 700)

There are no known side effects.

## 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

The remains of the product and the used containers must be disposed of in compliance with the regulations in force (local or national) of the various countries.

In its original state (liquid) it must be considered as waste not to be lost in the environment; recover if possible, otherwise send it to authorized malting / incineration plants.

Tips: do not dispose of the product with household waste. Do not empty into drains.

Uncleaned packaging: C. M.

Tips: disposal in accordance with administrative provisions. Properly cleaned metal containers can be disposed of as normal scrap.

## 14 TRANSPORT INFORMATION

### 14.1 Road and rail (ADR / RID)

Shipping description: DANGEROUS SUBSTANCE FOR THE ENVIRONMENT, LIQUID, N.A.S. (Epoxy resin)
Hazard class: 9 UN number: UN3082 Packing group: III
Classification: M6
Hazard identification number: 90
Danger to the environment: Yes

### 14.2 Maritime transport (IMO / IMDG)

Exact designation for shipment: Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin).
Hazard class: 9 UN number: UN3082 Packing group: III
EMS number: F-A, S-F
Marine pollutant: Yes

### 14.3 Aria (ICAO-TI / IATA-DGR)

Exact designation for shipment: Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin).
Hazard class: 9 UN number: UN3082 Packing group: III
Cargo Packaging Instructions: 964
Passenger Packing Instructions: 964
Danger to the environment: Yes

### 14.4 Inland waterways (ICAO / IATA)

Shipping description: DANGEROUS ENVIRONMENTAL SUBSTANCE, LIQUID, N.A.S. (Epoxy resin)
Hazard class: 9 UN number: UN3082 Packing group: III
Classification: M6
Hazard identification number: 90
Danger to the environment: Yes

## 15 REGULATORY INFORMATION

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

Seveso Category None
Restrictions relating to the product or contained substances pursuant to AnnexXVII to EC Regulation 1907/2006 None
Substances in Candidate List (Art. 59 REACH): None
Substances subject to authorisarion (Annex XIV REACH): None
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012: None
Substances subject to the Rotterdam Convention: None
Substances subject to the Stockholm Convention: None
Healthcare controls: Information not available

### 15.2 Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

### 15.3 International regulations, chemical inventories

REACH status The substances in this product have been pre-registered and / or registered or are exempt from registration, in accordance with Regulation (EC) number 1907/2006 (REACH)
Australia Inventory (AICS, List of Chemicals for Australia) - the material is listed or exempted
Canadian inventory - the material is listed or exempted
Japanese inventory - the material is listed or exempted
Chinese Inventory (Chemicals Inventory for China) - the material is listed or exempted
Korean inventory (DECI, List of chemical substances) - the material is listed or exempted
New Zealand Inventory of Chemicals (NZIoC) - not determined
Philippines Inventory (PICCS Chemical Inventory for the Philippines) - the material is listed or exempted
United States Inventory (TSCA, Toxic Substances Control Act, Section 8b) - the material is listed or exempted

## 16 OTHER INFORMATIONS

Text of hazard (H) indications mentioned in section 2-3 of the sheet:
Acute Tox. 1 Acute toxicity, category 1
Acute Tox. 3 Acute toxicity, category 3
Acute Tox. 4 Acute toxicity, category 4
Skin Corr. 1A Skin corrosion, category 1A
Eye Dam. 1 Serious eye damage, category 1
Skin Irrit. 2 Skin irritation, category 2
Skin Sens. 1 Skin sensitization, category 1
Aquatic Acute 1 Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1 Hazardous to the aquatic environment, chronic toxicity, category 1
H330 Fatal if inhaled.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
EUH210 Safety data sheet available on request.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version.
Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations.
The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

**BeriCalce ITALIA**
Via Odorico da Pordenone, 18 - 36100 Vicenza - ITALIA
Tel./Fax (+39) 0444 929102 - Tel. (+39) 0444 923317
Skype: bericalce - info@bericalce.com

bericalce.com