

Safety data sheet according to 453/2010/EC

Printing date 14.02.2013

Version number 16

Revision: 14.02.2013

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **Date of issue:** 18.11.1998
- **1.1 Product identifier**
- **Trade name:** Getter based on ST 17x, ST18x, St 198, ST301, ST707, ST717, ST736, ST737, ST80x
- **Document number:** BSDSE991221 Rev. 4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** no data available
- **Application of the substance / the preparation:** Absorbent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
SAES Getters S.p.A. Phone: ++39-02-93 178-429
Viale Italia 77 Fax: ++39-02-93 178-460
20020 Lainate (MI)
Italy
- **E-mail address of the competent person responsible for the Safety Data Sheet:** sdb@csb-online.de
- **Informing department:** Product safety department
- **1.4 Emergency telephone number:** CHEMTREC® phone: +1 703 527 3887 (International emergencies)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

- Flam. Sol. 1 H228 Flammable solid.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



F+; Highly flammable

- R11: Highly flammable.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02

- **Signal word** Danger
- **Hazard statements**
H228 Flammable solid.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378 In case of fire: Use for extinction: Special powder for metal fires.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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(Contd. on page 2)

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(Contd. of page 1)

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**

· **Description:** Metal compound

· **Dangerous components:**

CAS: 7440-67-7 EINECS: 231-176-9 Index number: 040-002-00-9	Zirconium powder (non pyrophoric)  F R15  Flam. Sol. 1, H228; Water-react. 1, H260	25-90%
CAS: 7440-32-6 EINECS: 231-142-3	Titanium  F R11 R16  Flam. Sol. 1, H228	25-50%

· **Additional information:**

For the wording of the listed risk phrases refer to section 16.

Metals possibly present:

Zirkonium
 Titanium
 Vanadium
 Aluminium
 Niobium
 Palladium
 Iron
 Molybdenum
 Rare Earth metals

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:** Immediately remove any clothing contaminated by the product.

· **After skin contact:**

The product is not skin irritating.

Wash with soap and water.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms consult doctor.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents** Special powder for metal fires. Do not use water.

· **For safety reasons unsuitable extinguishing agents** Water

· **5.2 Special hazards arising from the substance or mixture** Toxic or harmful metal oxides

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus.

· **Additional information** Collect contaminated fire fighting water separately. It must not enter drains.

GB

(Contd. on page 3)

Safety data sheet according to 453/2010/EC

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(Contd. of page 2)

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Avoid causing dust.
Remove all ignition sources.
- **6.2 Environmental precautions:** Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Collect mechanically.
Dispose of the material collected according to regulations.
Do not flush with water or aqueous cleansing agents.
- **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Any deposit of dust which cannot be avoided must be removed regularly.
Do not breathe dust.
Make sure that all applicable workplace limits are observed.
Avoid contact with eyes.
Avoid prolonged or repeated skin contact.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store under dry conditions.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.
Instantly remove any contaminated garments.
Do not eat, drink or smoke while working.
Do not breathe dust.
Avoid close or long term contact with the skin.
Avoid contact with the eyes.
Wash hands during breaks and at the end of the work.
Use skin protection cream for preventive skin protection.
- **Breathing equipment:** Not necessary if room is well-ventilated.

(Contd. on page 4)

Safety data sheet
according to 453/2010/EC

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(Contd. of page 3)

· **Protection of hands:**

Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Check the permeability prior to each renewed use of the glove.

To avoid skin problems reduce the wearing of gloves to the required minimum.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Protective gloves should be replaced at first signs of wear.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses recommended

· **Body protection:** Body protection must be chosen depending on activity and possible exposure.

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: solid

Colour: according to product specification

· **Smell:** characteristic

· **Change in condition**

Melting point/Melting range: not determined

Boiling point/Boiling range: not determined

· **Flash point:** not applicable

· **Inflammability (solid, gaseous)** Highly flammable.

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Density:** not determined

· **Solubility in / Miscibility with**

Water: insoluble

· **9.2 Other information** Further informations please refer to technical data sheet.

SECTION 10: Stability and reactivity

· **10.1 Reactivity**

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Humidity

· **10.3 Possibility of hazardous reactions**

Contact with water releases flammable gases

Reacts with acids releasing hydrogen.

· **10.4 Conditions to avoid** No further relevant information available.

(Contd. on page 5)

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(Contd. of page 4)

- **10.5 Incompatible materials:**
 - Water
 - Strong acids
- **10.6 Hazardous decomposition products:**
 - Flammable gases/vapours
 - Toxic or harmful metal oxides

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Dust particles may mechanically irritate the skin.
- **on the eye:** Dust particles may mechanically irritate the eye.
- **Sensitization:** No sensitizing effect known.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **European waste catalogue:**
 - Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---------------------------------------|---|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | UN3089 |
| · 14.2 UN proper shipping name | |
| · ADR | UN 3089 METAL POWDER, FLAMMABLE, N.O.S.
(ZIRCONIUM, TITANIUM POWDER) |
| · IMDG, IATA | METAL POWDER, FLAMMABLE, N.O.S. (ZIRCONIUM,
TITANIUM POWDER) |

(Contd. on page 6)

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(Contd. of page 5)

· **14.3 Transport hazard class(es)**

· **ADR**



- **Class** 4.1 (F3) Flammable solids, self-reactive substances and solid desensitised explosives.
- **Label** 4.1

· **IMDG, IATA**



- **Class** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
- **Label** 4.1

· **14.4 Packing group**

- **ADR, IMDG, IATA** II

· **14.6 Special precautions for user**

- Warning: Flammable solids, self-reactive substances and solid desensitised explosives.
- **Kemler Number:** 40
- **EMS Number:** F-G,S-G
- **Segregation groups** Heavy metals and their salts (including their organometallic compounds), powdered metals

· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

Transport by post may be prohibited or restricted.

· **ADR**

- **Excepted quantities (EQ):** E2
- **Limited quantities (LQ):** 1 kg
- **Transport category:** 2
- **Tunnel restriction code:** E

· **UN "Model Regulation":**

UN3089, METAL POWDER, FLAMMABLE, N.O.S. (ZIRCONIUM, TITANIUM POWDER), 4.1, II

SECTION 15: Regulatory information

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

· **National regulations**

· **Information about limitation of use:** Employment restrictions concerning young persons must be observed.

· **Decree to be applied in case of technical fault:**

Quantity limits according to "EC Seveso directive" should be observed.

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

GB

(Contd. on page 7)

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(Contd. of page 6)

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Reasons for changes:**

*The Material Safety Data Sheet has been revised. Changes in the respective chapters are characterized in the left side edge by *.*

· **Relevant phrases**

The(se) R-phrase(s) are those of the ingredient(s) and do(es) NOT represent the classification of the preparation.

H228 Flammable solid.

H260 In contact with water releases flammable gases which may ignite spontaneously.

R11 Highly flammable.

R15 Contact with water liberates extremely flammable gases.

R16 Explosive when mixed with oxidising substances.

· **Recommended restriction of use: Industrial use**

· **Department issuing MSDS:**

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Parkstraße 29 Fax: +49 - 2151 - 652086-9

D-47829 Krefeld

Germany

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

· **Sources: These data are based on information submitted by pre-suppliers.**

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