1. IDENTIFICATION

Product identifier

Product name: REPLISET-F1, -F5, -T1, -T3, -GF1, -GT1

Cat. No. 40900050, 40900051, 40900052, 40900053, 40900069, 40900047, 40900068, 40900046, 40900071, 40900049, 40900070, 40900048, 40900076, 40900077, 40900078, 40900079

Container size: 50 ml; 265 ml

Recommended use and restrictions on use

Application: Replication system for materialographic surfaces.

Details of the supplier of the safety data sheet

Supplier: Struers Inc.
24766 Detroit Rd. Westlake
OH 44145 Cleveland.
United States
Tel: +1 () 440 871 0071

Responsible for safety data sheet authoring: Responsible for safety data sheet authoring: DHI

Any questions to the contents of this safety data sheet should be sent to: struers@struers.dk

Emergency telephone number

Alberta & NWT:
Poison & Drug Information Service (PADIS): 1-800-332-1414
British Columbia:
Drug and Poison Information Centre (DPIC): 604-682-5050 / 1-800-567-8911
Ontario:
Poison Centre: 1-800-268-9017
Québec:
Poison Control Centre: 1-800-463-5060

Infotrac:
1-800-535-5053
Struers CAN:
+1 (905) 8148855
(Only during office hours)

2. HAZARDS IDENTIFICATION

Classification of the hazardous product

WHMIS 2015: The product is not classified.

Label elements

The substance/mixture does not meet the criteria for classification and labelling.

Other hazards

PBT/vPvB: Not Classified as PBT/vPvB by current EU criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS
4. FIRST-AID MEASURES

Description of first-aid measures

**Inhalation:** Move into fresh air and keep at rest.

**Skin contact:** Remove contaminated clothes and rinse skin thoroughly with water.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

**Ingestion:** Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.

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

**Symptoms/effects:** See section 11 for more detailed information on health effects and symptoms.

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

**Medical attention/treatments:** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Extinguishing media**

**Extinguishing media:** Extinguish with foam, carbon dioxide, dry powder or water fog. Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the hazardous product**

**Specific hazards:** In case of fire, toxic gases may be formed.

**Advice for fire-fighters**

**Protective equipment for fire-fighters:** Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.
6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Protective equipment:**
Avoid contact with skin and eyes. For personal protection, see section 8. (*)

**Emergency procedures:**
No specific recommendations. For personal protection, see section 8. (*)

**Environmental precautions**
Avoid discharge into water courses or onto the ground.

**Methods and material for containment and cleaning up**

**Spill Cleanup Methods:**
Dam and absorb spillage with sand, sawdust or other absorbent.

**Reference to other items**

**References:**
For personal protection, see section 8. For waste disposal, see section 13.

7. HANDLING AND STORAGE

**Precautions for safe handling**

**Safe handling advice:**
Avoid contact with skin and eyes. Observe good chemical hygiene practices.

**Technical measures:**
Work practice should minimize contact.

**Technical precautions:**
Local exhaust is recommended.

**Conditions for safe storage, including any incompatibilities**

**Storage conditions:**
Store in tightly closed original container. Store at room temperature.

**Specific end-use(s)**

**Specific use(s):**
No information available.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Other provincial OEL's may apply.

(*)

Occupational exposure limits:

<table>
<thead>
<tr>
<th>CAS-No.:</th>
<th>Chemical name</th>
<th>As:</th>
<th>Exposure limits</th>
<th>Type:</th>
<th>Notes:</th>
<th>References:</th>
</tr>
</thead>
<tbody>
<tr>
<td>60676-86-0</td>
<td>Silica fused, respirable fraction</td>
<td>-</td>
<td>0.1 mg/m³</td>
<td>TWA</td>
<td>Ont</td>
<td>Ontario</td>
</tr>
<tr>
<td>60676-86-0</td>
<td>Silica - Crystalline, fused, respirable dust</td>
<td>-</td>
<td>0.1 mg/m³</td>
<td>TWA</td>
<td>-</td>
<td>Quebec</td>
</tr>
<tr>
<td>1333-86-4</td>
<td>Carbon black</td>
<td>-</td>
<td>3.5 mg/m³</td>
<td>TWA</td>
<td>-</td>
<td>Quebec</td>
</tr>
</tbody>
</table>

Notes: Ont: listed in Table 1 of Ontario Regulation 490/09.

Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation.

Personal protection: Personal protection equipment should be chosen according to relevant standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation use suitable respirator. It is recommended to use respiratory equipment with combination filter, type A2/P2.

Hand protection: Risk of contact: Wear protective gloves. Nitrile gloves are recommended. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection: Risk of contact: Wear goggles/face shield.

Skin protection: Wear apron or protective clothing in case of contact.

Hygiene measures: Wash hands after handling.

Environmental Exposure Controls: Not available.
9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

(*)

Form:    Viscous liquid.
Colour:  Black / Blue
Odour:   Slight odour.
Odour threshold:  Not available.
pH:      Not applicable.
Melting point: Not available.
Boiling point: Not available.
Flash point: >150°C
Evaporation rate: Not available.
Flammability (solid, gas): Not applicable.
Explosion limits: Not available.
Vapour pressure: Not available.
Vapour density: Not available.
Relative density: 1.1
Solubility: insoluble in water
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature (°C): 400°C
Decomposition temperature (°C): >200°C
Viscosity: 18000 mm²/s (25 °C)
Explosive properties: Not considered to be explosive.
Oxidising properties: Not available.

Other information

Other data: Volatile Organic Compound (VOC): 0 g/l
10. STABILITY AND REACTIVITY

**Reactivity**

Reactivity: None under normal conditions.

**Chemical stability**

Stability: Stable under normal temperature conditions.

**Possibility of hazardous reactions**

Hazardous Reactions: During storage, this product may generate hydrogen gas. Quantity of hydrogen potentially released (l/kg of product): < 4.

**Conditions to avoid**

Conditions/materials to avoid: Temperatures above 200°C.

**Incompatible materials**

Incompatible materials: Chemical compounds with mobile hydrogen, in the presence of metal salts and complexes. Strong oxidizing substances, strong acids and strong bases.

**Hazardous decomposition products**

Hazardous decomposition products: Silica dust and oxides of carbon are released at temperatures above 200°C.
11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity (Oral): Based on available data, the classification criteria are not met.
Acute Toxicity (Dermal): Based on available data, the classification criteria are not met.
Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.
Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Based on available data, the classification criteria are not met.
Respiratory or skin sensitization: Based on available data, the classification criteria are not met.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met. National Toxicology Program (NTP): No. IARC Cancer Review: Group 2B for Titanium dioxide. IARC Cancer Review: Group 2B for Carbon black. (*) IARC Cancer Review: Group 3 for Silica, Amorphous.
Reproductive Toxicity: Based on available data, the classification criteria are not met.
STOT - Single exposure: Based on available data, the classification criteria are not met.
STOT - Repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.
Inhalation: Not relevant at normal room temperatures. When heated, corrosive and toxic vapours may be formed.
Skin contact: Prolonged contact may cause redness and irritation.
Eye contact: Splashes may irritate.
Ingestion: No harmful effects expected in amounts likely to be ingested by accident.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity: The product is not expected to be hazardous to the environment.

Persistence and degradability

Degradability: The product contains inorganic compounds which are not biodegradable. The other substances of the product are slowly biodegradable.

Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

Mobility in soil

Mobility: No data available.

Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other adverse effects

Other adverse effects: No information available.
13. DISPOSAL CONSIDERATIONS

Waste treatment methods

**Waste from residues:** Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

**Contaminated packaging:** Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, TDG).

**UN number**

**UN-No:** -

**UN proper shipping name**

**Proper Shipping Name:** -

**Transport hazard class(es)**

**Class:** -

**Packing group**

**PG:** -

**Environmental hazards**

**Marine pollutant:** -

**Environmentally Hazardous substance:** -

**Special precautions for user**

**Special precautions:** None known.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

**Transport in bulk:** Not relevant
15. REGULATORY INFORMATION

Safety, health and environmental regulations specific to the product

Special provisions:

DSL: All chemicals included in the product are DSL listed or exempt. (*)

All components of this product are listed or exempt from listing on the TSCA inventory. (*)

HMIS Ratings: Health: 1  Fire: 1  Physical Hazard: 0

NFPA Rating: Health: 1  Fire: 1  Reactivity: 0  Other: -

National regulation:

Ontario: Control of Exposure to Biological or Chemical Agents R.R.O. 1990, Reg. 833, with amendments (2016).
Quebec: Regulation respecting the quality of the work environment, with amendments (2013-12-13).
Department of Justice. IDL – Ingredient Disclosure List. SOR/88-64, 31 December 1987, with amendments.
Canadian Environmental Protection Act, Reporting for the Domestic Substances List (DSL), with amendments.
Department of Justice. Canadian Environmental Protection Act 1999 (CEPA), 1999, c. 33, with amendments.
16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 6, 8, 9, 11, 15.
The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

[Signature]

Allan Vorup

Additional information: Classification according to WHMIS 2015:
Calculation method.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.