

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/23/2007

Reviewed on 01/03/2007

1 Identification of substance

. Product details

. Trade name: GRILAMID TR 90 NATUR

. Article number: 123242

. Manufacturer/Supplier:

EMS-CHEMIE AG CH-7013 Domat/Ems
Tel.+41 81 632 79 80, Fax:+41 81 632 74 01

. Emergency information:

EMS-CHEMIE AG CH-7013 Domat/Ems, Phone:++41 (0) 81-632-6111 Fax:++41 (0) 81 - 632-7401
Poison centre Switzerland Zürich, Phone:++41 (0) 1-251 51 51
USA : Chemtrec hotline 1-800-424-9300

2 Composition/Data on components

. Chemical characterization

. Description: Polyamide 12 TR

. Dangerous components: Void

3 Hazards identification

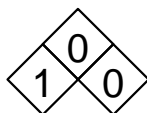
. Hazard description: Not applicable.

. Information pertaining to particular dangers for man and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

. Classification system:

. NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

. HMIS-ratings (scale 0 - 4)

HEALTH	1
FIRE	0
REACTIVITY	0

Health = 1
Fire = 0
Reactivity = 0

4 First aid measures

. General information: No special measures required.

. After inhalation: Seek medical treatment in case of complaints.

. After skin contact:

After contact with the molten product, cool rapidly with cold water.
Do not pull solidified product away from the skin.

. After eye contact:

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

. After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

. Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- . **Special hazards caused by the material, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Carbon monoxide (CO)
Hydrogen cyanide (HCN)
- . **Protective equipment:** No special measures required.

6 Accidental release measures

- . **Person-related safety precautions:** Particular danger of slipping on leaked/spilled product.
- . **Measures for environmental protection:** No special measures required.
- . **Measures for cleaning/collecting:** Pick up mechanically.
- . **Additional information:** No dangerous substances are released.

7 Handling and storage

- . **Handling:**
- . **Information for safe handling:**
Any deposit of dust which cannot be avoided must be regularly removed.
Extractors are required on all machines used for thermal processing or splinter removal processes.
- . **Information about protection against explosions and fires:**
Dust can combine with air to form an explosive mixture.
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** No special requirements.
- . **Information about storage in one common storage facility:** Not required.
- . **Further information about storage conditions:** None.

8 Exposure controls and personal protection

- . **Additional information about design of technical systems:** No further data; see item 7.
- . **Components with limit 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.
- . **Personal protective equipment:**
- . **General protective and hygienic measures:** Avoid skin contact with the liquefied material.
- . **Breathing equipment:** Not required.
- . **Protection of hands:** Protective gloves
- . **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.
- . **Penetration time of glove material**
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

9 Physical and chemical properties

. General Information

Form:	Granulate
Color:	According to product specification
Odor:	Nearly odorless

. Change in condition

- . **Melting point/Melting range:**
Glass transition temperature: 155°C (311°F)

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- | | |
|--------------------------------------------------|-----------------------------------------------|
| . Boiling point/Boiling range: | Undetermined. |
| . Flash point: | Not applicable. |
| . Danger of explosion: | Product does not present an explosion hazard. |
| . Density at 20°C (68°F): | > 1 g/cm ³ |
| . Solubility in / Miscibility with Water: | Insoluble. |

10 Stability and reactivity

- . **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- . **Dangerous reactions** No dangerous reactions known.
- . **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- . **Acute toxicity:**
- . **Primary irritant effect:**
- . **on the skin:** No irritant effect.
- . **on the eye:** No irritant effect.
- . **Sensitization:** No sensitizing effects known.
- . **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information

- . **General notes:** Generally not hazardous for water

13 Disposal considerations

- . **Product:**
- . **Recommendation:**
On the basis of the necessary technical regulations and after consultation with the disposal agent and the relevant authorities, can be disposed of with domestic waste or incinerated with domestic waste.
- . **Uncleaned packagings:**
- . **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- . **DOT regulations:**
- . **Hazard class:** -
- . **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulations

- . **Sara**
- . **Section 355 (extremely hazardous substances):**
None of the ingredient is listed.

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. Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

. TSCA (Toxic Substances Control Act): All ingredients are listed.

. Proposition 65

. Chemicals known to cause cancer:

None of the ingredients is listed.

. Cancerogenity categories

. EPA (Environmental Protection Agency)

None of the ingredients is listed.

. IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

. NTP (National Toxicology Program)

None of the ingredients is listed.

. NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

. Product related hazard informations:

The product is not subject to identification regulations according to directives on hazardous materials.

. National regulations:

. Water hazard class: Generally not hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Department issuing MSDS: Environment and safety department(U+S)

. Contact:

Doris Lüdi, Produktesicherheit

Tel.+41 81-632-6526, Fax +41 81-632-7470

. * Data compared to the previous version altered.

USA