MATERIAL SAFETY DATA SHEET

1

IDENTIFICATION OF THE SUBSTANCE OR MIXTURE

IDENTIFICATION OF THE COMPANY OR UNDERTAKING **1.1 Product identifier:** TG GLUE METAL PLAST

1.2. Relevant identified uses of the substance and uses advised against:Specific use: hot melt adhesive.

1.3. Details of the supplier of the safety data sheet:

TG-CLEAN^{A/S}

Company: TG-CLEAN A/S Address: Værkstedsvej 24A City: Køge Region: 4600 Country: Denmark Phone: +45 43908400 E-mail: info@tg-clean.dk

1.4. Emergency telephone number:

European Emergency Number (24 hours): 112.

2.2. Label elements:

This product must not be labelled according to Directive 1999/45/CE.

2.3. Other hazards: No data available.

HAZARDS

3

2

COMPOSITION AND INFORMATION ON INGREDIENTS

5 / 2014

2.1. Classification of the substance:

 This product is considered not hazardous according to directive 1999/45/CE.
Caution: Contact with molten adhesive may cause severe thermal burns prolonged exposure to adhesive vapours may cause slight irritation of the eyes, skin or respiratory system.

 Product made from the mixture of different polymeric materials. None of the components is classified as hazardous substance according to Regulation (CE) N° 1907/2006.

> Management System ISO 9001:2008



FIRST AID MEASURES

4

4.1. Description of first aid measures:

 GENERAL CONSIDERATIONS: No special safety precaution is needed. Molten product may cause severe thermal burns.
INHALATION: Solid product does not emit vapors. Continuous breathing of vapors above molten product may irritate mucous membranes. If these symptoms are de- tected, move to fresh air. If symptoms persist, get medical attention.

> EYE CONTACT: Contact with molten product may cause serious damage to the eye. Do not remove the product and cool immediately with clean water for at least 15 minutes. Seek medical attention.

> SKIN CONTACT: Solid product has no hazards in normal conditions. In case of burn by contact with melted product, immediately flush the melted product on skin with plenty of cold water. Do not use solvents. Do not remove solidified product because skin can be easily torn.

INGESTION: It is difficult to occur in normal conditions of use. In any case, ingestion of solid product is not expected to be hazardous. If symptoms develop and persist, get medical attention.

> NOTE FOR MEDICAL SERVICES: Burns must be treated as thermal burns. The product will remove during the cure, so it is advisable not to remove it immediately after the burn is produced.

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

 This product is considered not hazardous in solid state.

In molten state, the product may cause burns, and after prolonged exposure to vapors, it may cause irritation of the respiratory system, eyes or skin.

4.3. Indication of any immediate medical attention and special treatment needed:No special treatment is needed.

Management System ISO 9001:2008



www.tuv.com ID 1100008007

5/2014

2/7

5_

FIREFIGHTING MEASURES

6_

ACCIDENTAL RELEASE MEASURES

7_____ HANDLING AND STORAGE



5.1. Extinguishing media:

> SUITABLE: Dry chemical, carbon dioxide, foam.
> UNSUITABLE: Direct application of water

• **UNSUITABLE**: Direct application of water may disperse the product.

6.1. Personal precautions, protective

> Avoid contact with melted product ant

inhalation of vapors. Evacuate unprotected

and untrained personnel from hazard area. • Protective equipment: heat insulating

gloves and clothes to avoid contact with

melted product. If vapors are concentrated,

> Spilled material will cool and solidify.

Once cooled, scrape the material up and place in a closed container for disposal.

use respiratory protection equipment.

equipment and emergency procedures:

5.2. Special hazards arising from the substance or mixture:

 Upon decomposition, the product can emit acetic acid, carbon dioxide, carbon monoxide and/or low molecular weight hydrocarbons.

5.3. Advice for firefighters:

No special action is needed.

6.2. Environmental precautions:

Isolate the spilled area and do not allow the material to contaminate ground water system. Avoid dispersion.

6.3. Methods and material for containment and cleaning up:

Once cooled, spilled material must be scrapped up to prevent slipping, and placed in closed containers for disposal.

7.1. Precautions for safe handling:

 No special caution is needed when using the product for its specified use.

 Recommended application temperature: 180 - 210 °C.

 Avoid direct contact with melted product, and follow application temperature recommendation.

 No eating, drinking or smoking in working areas.

7.2. Conditions for safe storage, including any incompatibilities:

 Keep the product in its original closed package. Store the material between 0 °C and 40 °C.

Prevention of fires and explosions:
Avoid contact with oxidizing agents.
Minimize dust accumulation.

Management System ISO 9001:2008



8_

5 / 2014

4/7

EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1. Control parameters:

The product does not contain significant amounts of substances with exposure limits to be controlled in the working place. > Threshold Limit Value (TLV). ACGIH: None.

- Germany (MAK): None.
- United Kingdom (OES): None.

8.2. Exposure controls:

APPROPIATE ENGINEERING CON-TROLS: work should be done in an adequately ventilated area. Local exhaust ventilation is recommended when general ventilation is not sufficient. The air in the working area should be renovated at least 10 times per hour.

Individual protection measures:

> EYE AND FACE PROTECTION: not necessary under normal conditions. When potential risk of splashing or spraying of the product exists, wear safety glasses and even full face protection.

> SKIN PROTECTION: when prolonged contact with solid product, use vinyl polychloride or nitrile rubber gloves. Working with molten product, use insulating gloves to prevent burns.

RESPIRATORY PROTECTION:

under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection. In case of vapor accumulation, use respiratory equipment with A-class filter.

> TERMAL HAZARDS: use insulating gloves to prevent burns.

Management System ISO 9001:2008



9.1. Information on basic physical and chemical properties:

9_

| PHYSICAL AND CHEMICAL | • APPEARENCE: | Yellow |
|--------------------------|---|---|
| PROPERTIES | > ODOUR: | Odorless in solid state Slight characteristic odor in molten state |
| | > ODOUR THRESHOLD: | Not applicable |
| | → pH: | Not applicable |
| | • MELTING POINT: | |
| | » BOILING POINT: | Not applicable |
| | , FLASH POINT: | > 250 °C (open cup) |
| | > EVAPORATION RATE: | Not applicable |
| | › FLAMMABILITY: | Not available |
| | • FLAMMABILITY LIMITS: | Not available |
| | > EXPLOSIVE LIMITS: | Not available |
| | · VAPOUR PRESSURE: | Not applicable |
| | > VAPOUR DENSITY: | Not applicable |
| | > RELATIVE DENSITY: | 0,98 |
| | » SOLUBILITY IN WATER: | Insoluble |
| | PARTITION COEFFICIENT N-OCTANOL / WATER: | Not available |
| | AUTO-IGNITION TEMPERATURE: | Not available |
| | DECOMPOSITION TEMPERATURE: | 220 °C |
| | , VISCOSITY: | 9.000 cP a 180 °C |
| | • EXPLOSIVE PROPERTIES: | Not applicable |
| 5/2014 5 /7 | • OXIDISING PROPERTIES: | Not applicable |
| | | |

Management System ISO 9001:2008



9

PHYSICAL AND CHEMICAL PROPERTIES

10

11

STABILITY AND REACTIVITY

9.2. Other information:

› Volatile Organic Compounds content: 0 %.

10.1. Reactivity: Nonreactive.

10.2. Chemical stability: Stable under normal ambient conditions and normal use.

10.3. Possibility of hazardous reactions: No hazardous reaction or polymerization is expected to occur.

No symptoms of intoxication have been described after a normal use of the product for its specific use (Section 1.2.) and under the recommended handling conditions (Section 7.1.).

No data available.

> Solids content: 100 %.

10.4. Conditions to avoid:

Do not exceed recommended application temperature (Section 7.1.).

10.5. Incompatible materials: Oxidizing agents.

10.6. Hazardous decomposition products: If recommended application temperature is exceeded, acetic acid, carbon monoxide and carbon dioxide can be emitted.

Prolonged exposure to adhesive vapours may cause slight irritation of the eyes, skin or respiratory system. Ingestion is difficult to occur in normal conditions of use, and in any case is not expected to be hazardous.

- > This product is not a hazardous waste when discarded.
- > Low Code: 080410 "waste adhesives and sealants other than those mentioned in 080409".
- > Do not discard together with urban waste.
- > Do not spill in ground water system or water sources.
- , Reuse or recycle the material when it is possible.
- As a disposal alternative, incinerate in an industrial, commercial or municipal incinerator.

Management System ISO 9001:2008



www.tuv.com ID 1100008007

12

TOXICOLOGICAL

INFORMATION

ECOLOGICAL INFORMATION

13 DISPOSAL CONSIDERATIONS

6/7

5/2014

14_

TRANSPORT INFORMATION

15_____ REGULATORY INFORMATION

16_____ OTHER INFORMATION

| 5 / 2014 | 7/7 |
|----------|-----|
| 372014 | 1/1 |
| | |
| | |

Ground transportation (ADR):
Not regulated.
Train Transportation (RID):
Not regulated.

15.1. Safety, health and environmental regulations and legislation specific for the substance or mixture:

All the components of this product have been registered according to Regulation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

The information in this Material Safety Data Sheet is based on knowledge and experience and is believed to be correct as of the date issued. This information is designed as a guide to the use, storage, transport and disposal of the product, and does not constitute a warranty or quality specification, nor create any contractual relationship.

Comersim S.A.U. has no control over the use given to the product. A different use from specified or the mixture with other products could originate not foreseen Air transportation (ICAO/IATA):
Not regulated.
Water transportation (IMO/IMDG):
Not regulated.

15.2. Chemical safety assessment:

No data available. Due to the nature of its components, the product is considered not hazardous, and no special labelling is required.

hazards.

It is the user's responsibility to determine the suitability of the product for a particular purpose, and to adopt such precautions as may be advisable for the protection of persons and property involved in the use of the product.

> Management System ISO 9001:2008

