Product Handling Information Sheet (PHIS)
Information on the safe handling of products

TECASINT 8000

1. Identification of the article and of the company

Trade name:
TECASINT 8001 yellow-brown,
TECASINT 8111 yellow-brown,
TECASINT 8061 yellow-brown,
TECASINT 8591 grey

Application:
Semi-finished engineering plastics, finished parts

Note:
The present product is an article in the sense of regulation (EC) No 1907/2006 (REACH).

Manufacturer/Supplier:
Ensinger Sintimid GmbH
Ensingerplatz 1
A-4863 Seewalchen
Österreich
Tel. +43 7662 88 788 0
www.ensingerplastics.com

Competent person:
phib@ensingerplastics.com

2. Hazards identification

Classification and labelling:
The product is not classified and doesn`t need any labelling.

Other hazards:
There are no known risks, if the regulation/details for handling are observed.

3. Composition/information on ingredients

Description:
Article based on polytetrafluoroethylen (PTFE), CAS No 9002-84-0.
Possibly containing polyimide (PI).
Possibly containing glass fibres.
Possibly containing mineral fillers and/or molybdenum disulphide (MoS2).
Possibly containing additives and processing aids.

Information on ingredients:
There are no substances from the candidatelist (SVHC) in the product present above a concentration of 0,1 % weight by weight (w/w).
The product doesn`t contain any substance, which is supposed to be released under normal or reasonably foreseeable conditions of use.

4. First aid measures

After inhalation:

After inhalation of fumes or thermal decomposition products, remove person from the danger zone. Oxygen supply, apply artificial respiration if necessary. Keep quiet and warm, seek medical help immediately. Symptoms of poisining often first appear after some hours.

After skin contact:

In case of skin irritation caused by glass fibres, wash skin thoroughly with cold water. Do not use warm water, as this will open the pores of the skin, thus enabling the fibres to enter more deeply. Do not rub or scratch. Remove contaminated clothing. In the event of persisting skin irritation seek medical help.

After eye contact:

If a foreign body (splinter, chip) enters the eye do not rub. Immobilize the eye, cover both eyes with bandages, consult an eye specialist.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

5. Firefighting measures

Suitable extinguishing media:

Water spray, alcohol-resistant foam, carbon dioxide, dry chemical foam.

Unsuitable extinguishing media:

Water jet.

Special hazards arising from the article:

With carbonization and incomplete combustion toxic gases develop, predominantly carbon dioxide and carbon monoxide. The development of further fission and oxidation products is dependent on the conditions of burning. Traces of other toxic substances may develop under certain conditions of burning.
The release of sulphur dioxide and other sulphur oxides, hydrofluoric acid, tetrafluoroethylene, hexafluoropropylene, perfluoroisobuthylene, carbonyl difluoride and other low-molecular fluorocarbons is possible.

Advice for firefighters:

If exposed to fumes and carbonization gases during fire-fighting measures, rescue operations and cleanup wear a self-contained breathing apparatus.
The product is difficult to ignite and is self-extinguishing.
In an advanced state of fire, the molten polymer must be cooled with water. Water used to extinguish the fire and fire remainders must be collected and water disposed of, in accordance with local regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:
No special measures necessary.

Environmental precautions:
No special measures necessary.

Methods and material for containment and cleaning up:
Mechanical cleaning up.
Dust deposits must be removed by humid or wet cleaning or with an appropriate industrial vacuum cleaner (minimum is dust class M). Dry sweeping or blowing-off of dust deposits with compressed air is not allowed.

7. Handling and storage

Precautions for safe handling:
Avoid overheating of material by improper handling. The "Ensinger machining recommendations for semi-finished engineering plastics" are to be observed.
Mechanical processing should generate as little dust as possible. A local extraction system must be installed, or else a proper ventilation of the workplace must be guaranteed.
Take measures against static discharge. Keep away from sources of ignition.
Avoid inhalation of dust/mist/vapour.

General industrial hygiene regulations are to be observed.
Wash hands before breaks and at the end of workday.
Tobacco should not be kept in the workplace.
Do not eat, drink or smoke in the workplace.

Conditions for safe storage, including any incompatibilities:
Large quantities of product should not be stored with inflammable materials. If in fire, fluorocarbon polymers can cause relatively toxic gases to be released.

8. Exposure controls/personal protection

Control parameters:
In case of mechanical processing the general limit for dust is valid.

Exposure controls:
The working area should be well ventilated.

Respiratory protection:
If technical measures are insufficient, protective breathing apparatus must be worn. Use dust mask with at least filter type P2 (DIN EN 140/142/143) or filter apparatus with ventilator and helmet or hood, at least TH2P (DIN EN 12941).

Eye/face protection:
For mechanical operations wear safety glasses with side pieces or fully closed and tight-fitting goggles (DIN EN 166).

Hand protection/skin protection:
For mechanical processing of fibre reinforced products loose fitting, tight work clothes should be worn. Persons with sensitive skin should wear leather protective gloves (DIN EN 388).
Skin protection should be used (barrier cream containing tanning agent).

9. Physical and chemical properties

Appearance:
solid (semi-finished or finished parts)

Odour/odour threshold:
odourless

Melting point/Melting range:
N/A

Initial boiling point and Boiling range:
N/A (solid)

Relative density:
> 1 g/cm³

Decomposition temperature:
> 350 °C

Flash point:
N/A (solid)

Flammability (solid, gas):
N/A

Explosive properties:
N/A

Vapour pressure:
N/A (solid)

Solubility(ies):
insoluble (water, 20 °C)

Partition coefficient: n-octanol/water:
N/A

10. Stability and reactivity

Chemical stability:
Product is stable. No hazardous reactions known when stored and handled according to instructions and used for its intended purpose.

Conditions to avoid:
Do not heat to a temperature above the decomposition temperature.

Incompatible materials:
Reaction with metal powders (alkali metals and alkaline earth metals) may occur at a temperature above 370 °C.

Hazardous decomposition products:
By overheating of the material gaseous, toxic and caustic decomposition products, especially hydrofluoric acid, tetrafluoroethylene, hexafluoropropylene, perfluoroisobutylene and carbonyl difluoride may be generated.

11. Toxicological information

Acute toxicity:
Slight inhalation of thermal decomposition products or smoking contaminated tobacco can cause "fluorine polymer fever" after 2 - 6 hours (allergic alveolaritis with influenza-like symptoms: high temperature, shivering, chest pains, cough, increased pulse). Treatment is generally not necessary, symptoms disappear after 48 hours.
The result of massive inhalation of thermal decomposition products (in temperatures > 450 °C) is that after a symptomless time (4 - 24 hours) pulmonary oedema starts with the danger of suffocation.
Glass fibres and dust released during mechanical processing may cause irritation of eyes and skin. The symptoms will disappear after end of contact.
Inhalation of glass fibres and glass fibre dust may cause cough, irritation of nose and throat and sneezing. Massive exposition may cause breathing difficulties, stasis of secretions and chest tightness

Chronic toxicity:
The glass fibres that may be contained in this product are continuous filament glass fibres.
Endless filament glass fibres are classified as not carcinogenic. Their diameter is larger than 3 µm and they are therefore not respirable (definition of World Health Organisation WHO). Endless fibre filaments do not possess cleavage planes which would allow them to split lengthwise into fibres with smaller diameters, rather they break across the fibres, resulting in fibres which are of the same diameter as the original fibre with a shorter length. The critical fibre geometry is therefore almost never reached.
For your information: The carcinogenic influence of fibres (so called WHO fibres) largeley depends on the fibre geometry and the bio-persistency. If the fibre diameter (d) is smaller than 3 µm and the fibre length (l) larger than 5 µm and l/d ratio greater than 3, then the fibre may enter the upper respiratory tract, accumulate there and in case of sufficient bio-persistency cause serious lung diseases.
The product may contains respirable crystalline silica as an impurity.
Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica. There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis.

Other information:

In our experience and according to the literature provided to us the product does not cause any noxious effects when used and handled according to regulations.
With mechanical processing and proper use of the product the inhalation of mineral dust is not expected to present a health hazard. The amount of exposure is influenced by the emission ratio and the pattern of dust generation. The mineral additives contained in the product are firmly embedded in the plastic matrix. Mineral respirable dust to be released from the solid plastic is not likely.

12. Ecological information

No relevant information available.
Due to the consistency of the product a disperse distribution in the environment is not likely. Therefore, according to the present state of knowledge negative ecological effects are not expected.

13. Disposal considerations

Waste treatment methods:

Product residues can be recycled or treated in an energy recovery plant.

European waste cataloque:

The unpolluted product has no dangerous properties and is therefore not a hazardous waste within the meaning of regulation on the european List of wastes.

Waste codes/waste identification:

The exact assignment to a waste code must be carried out source- and use-related.
Proposals for the waste code numbers based on the probable use of the unpolluted product:
07 02 13 (waste plastic)
20 01 39 (plastics from separately collected fractions)

Packaging:

Uncontaminated or cleaned packaging can be recycled without verification.

14. Transport information

Not classified as dangerous in the meaning of transport regulations.

15. Regulatory informaton

Safety, health and environmental regulations/legislation specific:

According to annex II of the REACH regulation there is no legal obligation to compile safety data sheets for articles. We explicitly would like to point out that the present product handling information sheet (PHIS) is a voluntary information sheet for the handling of products, based on the same principle as our safety data sheets.
Information pursuant to Article 33 of Regulation (EC) No 1907/2006 (REACH): That article doesn`t contain any substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0,1 % weight by weight (w/w).

EU regulations:

According to regulation (EC) No 1272/2008 (CLP) articles are not subject to classification and labelling requirements.

Chemical safety assessment:

A chemical safety assessment is not necessary for articles and therefore has not been carried out.

National regulations:

Storage class VCI/TRGS 510 (Germany): 11 (flammable solid materials)

16. Other information

Indication of changes:

First issue, status as of 03/21.