

Material Safety Data Sheet

According to 2001/58EEC

Printing date 06.09.2002

Version 2

Reviewed on 27.08.2002

* 1 Identification of substance:

o Product details:

o Trade name: Metocene X50251

o Article number: 11273

o Application of the substance / the preparation Synthetic resin

o Manufacturer/Supplier: Basell Polyolefins Company GmbH

o Informing department:

Regulatory Affairs Department

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Polypropylene

* 2 Composition/Data on components:

o Chemical characterization:

CAS No. Designation:

9003-07-0 1-propene homopolymer

o Chemical characterization

o Description:

Mixture of the substances listed below with harmless additives

1-propene-homopolymer

* 3. Hazards identification

o Information pertaining to particular dangers for man and environment

The melted product adheres to the skin and causes burns.

Spilled material may present a slipping hazard.

Possible production of electrostatic chargings when used.

The working steams can irritate the eyes as well as the respiratory tract.

o Classification system

This product is according to EEC directive 1999/45, 67/548 and following adjustments not classified as hazardous.

* 4 First aid measures

o General information

The measures listed below apply to critical situations (Fire, incorrect process conditions).

At room temperature the product is neither an irritant nor gives off hazardous vapours.

- **After inhalation**

In case of excessive inhalation of fumes move the person to fresh air.
Call for medical help.

Keep person warm, if necessary give mouth-to-mouth resuscitation, or artificial respiration.

- **After skin contact**

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

Seek immediate medical advice.

- **After eye contact**

Rinse opened eye for several minutes under running water.

- **After swallowing**

Get medical advice if necessary.

No specific measures have to be taken if the product is swallowed.

- **5 Fire fighting measures**

- **Suitable extinguishing agents**

Water haze

Foam

Carbon dioxide

Chemical powder

- **For safety reasons unsuitable extinguishing agents** None

- **Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire it can release :

water (H₂O), carbon dioxide (CO₂), and when lacking oxygen (O₂), carbon monoxide (CO)

The products of the burning are dangerous.

The formation of hydrocarbons and aldehydes are possible in the initial stages of a fire (especially in between 400°C and 700°C).

- **Protective equipment:** Put on breathing apparatus.

- **Additional information** Heat value : 8000 - 11000 kcal/kg

- **6 Accidental release measures**

- **Person-related safety precautions:**

No specific measures are necessary.

See point 8

- **Measures for environmental protection:**

No special measures required.

See points 12 and 13.

- **Measures for cleaning/collecting:**

See point 13

Small spills:

Put into a labelled container and provide safe disposal.

Large spills:

Act as during a limited release.

Recycle product or dispose properly.

- **Additional information:**

Collect spilled polymer: It could cause falls (Danger of slipping).

- **7 Handling and storage**

- **Handling**

- **Information for safe handling:**

No special requirements necessary, if handled at room temperature.

Avoid spilling the product, as this might cause falls.

When bringing the material to working temperatures gases might develop, forming:

propylene

hydrocarbon substances with low molecular weight and their oxidation products

solvent residues

traces of formaldehyde and acrylaldehyde

traces of acids (Formic acid, acetic acid)

Provide appropriate ventilation for such processing conditions.

Experimental tests under different application conditions showed maximum limits of formaldehyde, acrylaldehyde, formic acid, and acetic acid being significantly below TLV- values.

Take precautionary measures against explosion risks, as all types of polymers may develop dust during transporting or grinding of granules.

- **Storage**

- **Requirements to be met by storerooms and containers:**

Take precautionary measures to prevent the formation of static electricity.

Do not smoke.

Ground equipment electrically.

Electric safety equipment.

Open flames prohibited.

Store the product in bags, car silos, container, or large cartons.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**

Store container in a well ventilated position.

Store under dry conditions.

Storage containers should be stacked at a maximum of two high.

- * **8 Exposure controls and personal protection**

Components with limit values that require monitoring at the workplace:

Not required.

Additional exposure limit values for possible processing dangers:

107-02-8 acrylaldehyde

OES: Short-term value: 0.70 mg/m³, 0.3 ppm

Long-term value: 0.23 mg/m³, 0.1 ppm

50-00-0 formaldehyde

MEL: Short-term value: 2.5 mg/m³, 2 ppm

Long-term value: 2.5 mg/m³, 2 ppm

64-19-7 acetic acid

OES: Short-term value: 37 mg/m³, 15 ppm

Long-term value: 25 mg/m³, 10 ppm

ILV

64-18-6 formic acid

OES: Long-term value: 9.6 mg/m³, 5 ppm

ILV

- **Additional information:** see point(s) 7, 9.
- **Personal protective equipment**
- **General protective and hygienic measures**
 - Do not eat or drink while working.
 - No smoking.
 - Provide system for collecting the vapors which are created during the working process.
- **Breathing equipment:**
 - If appropriate ventilation is not available use face mask when handling the molten product.
- **Protection of hands:** Heat resistant 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:** Not required.
- **Body protection:** Normal overalls

9 Physical and chemical properties:

- **General Information**
 - **Form:** Granulate
 - **Colour:** White
 - **Odour:** Odourless
- **Change in condition**

	Value/Range	Unit	Method
○ Melting point/Melting range:	160-163	° C	
- **Flash point:**
 - Not applicable (see attachment to guideline 92/69/EEC, A.9)
- **Ignition temperature:**

	> 400	° C	
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- **Decomposition temperature:**

	> 300	° C	
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- **Danger of explosion:**

See point(s) 7.	Product is not explosive.
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- **Density**

	at 20 ° C	0.89-0.91 g/cm ³
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- **Solubility in / Miscibility with**
 - **Water:** Insoluble
- **Additional information**

Soluble in boiling, aromatic chlorinated solvents.

• ***10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**
The product is stable at normal handling- and storage conditions.
- **Materials to be avoided:** Strong oxidation agent
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:**
No hazardous decomposition products known at room temperature.

• **11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effect 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:**

- **Information about elimination (persistence and degradability):**
- **Other information:** The product is not biodegradable.
- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:**
Floats on water.
There is no bioaccumulation.
- **General notes:**
The product is not toxic, small particles can have physical effects on water and soil organisms.

• ***13 Disposal considerations**

- **Product:**
- **Recommendation**
By decision of the European Commission of 20.12.1993 in its list of waste materials, the product is on the same level as municipal waste (Guideline EWG 75/442, later modified by EWG 91/156).
The material can be re-used or recycled according to the regulations of Guideline EG 94/62.
Disposal through controlled incineration or authorised waste dump.
- **European waste catalogue** 070213
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be done according to official regulations.

• **14 Transport information.**

○ **Transport/Additional information:**

According to national and international guidelines, which regulate the road-, rail-, air- and seairtransport, this product is classified as not dangerous.

● **15 Regulatory information**

○ **Designation according to EC guidelines:**

According to EEC Directive 67/548 and following adaptations the product is not dangerous.

○ **National regulations**

○ **Further regulations, restrictions and prohibition regulations.**

Generally all national regulations regarding this product type apply.

● ***16 Other information:**

The information supplied has been based upon the current level of information available, for the purpose of specifying the requirements regarding environment, health and safety in conjunction with the product. They are not to be interpreted as a warranty for specific product characteristics. Basell takes no responsibility for inappropriate use, processing and handling by purchasers and users of the product. 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.

○ **Department issuing data specification sheet:**

Regulatory Affairs Department

○ **Contact:** Ms Patrizia Busi

○ **Bibliography:**

- Directive EEC 67/548 and following adaptations

- Directive 1999/45/EC

- Directive 2001/58/EC

- RTECS (Registry of toxic effects of chemical substances 1985-1986 edition)

- Frostling, Hof, Jacobson, Pfaffli, Zitting, "Thermal decomposition products from plastics", 2-Polypropylene and poly vinyl chloride, 1983

- EINECS/ELINCS

○ *** Data compared to the previous version altered.**

Data 22/01/2003

Prot.: PB/pp/14311

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SUBJECT: BSE/TSE - USE OF TALLOW-DERIVATIVES FOR FOOD CONTACT PLASTICSThe concerns relative to **BSE/TSE** in the context of• **METOCENE X50251**

used in contact with food are linked to the use of additives of animal origin; the tallow derivatives.

These products, (fatty acids, fatty alcohols, metallic soaps, fatty amines, fatty amides, fatty acid esters, glycerine) are incorporated in plastics as lubricants, slip agents, anti-static agents as well as emulsifiers, anti-oxidants or corrosion inhibitors. They are primarily extracted from tissues from ovine or bovine origin.

The tallow derivatives used for the production of plastics materials undergo a series of severe process steps during manufacture:

1. Normally, pre-treatment of tallow and/or animal fat with strong acids
2. Hydrolytic cleavage at temperatures above 200°C, under pressure, for more than 20 minutes, yielding glycerine and fatty acids.
3. Transesterification of the fatty acids with methanol at temperatures above 200°C, under pressure, for more than 20 minutes, yielding fatty acid methyl ester.
4. Reduction of fatty acid methyl ester with hydrogen at temperatures above 200°C under high pressure, for more than 20 minutes, yielding fatty alcohols.

According to the revised opinion of the EU Scientific Steering Committee on the Safety of Tallow (June 2001*) and the recommendation for inactivation of TSE included (among other) in the Commission Directive 2000/6/EC²⁾ and also in the updated report of APAG of April 2001³⁾, the above-mentioned treatments do ensure a complete inactivation of any **BSE/TSE** agent regardless of the source and type of material*.

The additional exposure of the plastic materials to temperatures ranging from 150°C to 300°C during 30 seconds up to several minutes, both at the compounding step and in the final conversion process represents an additional safety factor ensuring the protection of people's health in respect to **BSE/TSE** for plastic materials used in contact with food.

a) Scientific Steering Committee: Revised opinion and report on: The safety of tallow obtained from ruminant slaughter by-products – http://europa.eu.int/comm/food/fs/sc/ssc/outcome_en.html#opinions

b) twenty-fourth Commission Directive 2000/6/EC of February 2000 adapting to technical progress Annexes II, III, VI and VII to Council Directive 76/768/EEC on the approximation of the laws of the Member States relating cosmetic products.

c) The Safety of Tallow derivatives with respect to Bovine Spongiform Encephalopathy – an Updated Report, April 2001, APAG (=The European Oleochemicals & Allied Products Group)

* NB this statement is valid for tallow derivatives to be used in plastics materials; thye products used in food, animal feed, pharmaceutical and cosmetic applications should comply with additional Directives.

At Your disposal for any other questions.

Best regards,


P. AUSI