

# HYTREL<sup>®</sup> Thermoplastic Polyester Elastomer

This Product Safety Information Sheet is provided as general information for health and safety guidance.

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### Product identifier

**Product name** : HYTREL<sup>®</sup> Thermoplastic Polyester Elastomer

Types : G4778, 5555HS, HTR8163HV, HTR8163HVBK, HTR8241

Recycling code : ISO 11469 : >TPC-ET<

### Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Resin for moulding and/or extrusion

### Details of the supplier

Company : SSP Manufacturing,  
Inc. 83 Spring Lane,  
Hackettstown,  
NJ 07840

Telephone : 1-908-852-3125

Telefax : 1-908-852-3425

E-mail address : rrom@sspseals.com

## SECTION 2: Hazards identification

### Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### Label elements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### Other hazards

Hazardous decomposition products

Tetrahydrofuran

## SECTION 3: Composition/information on ingredients

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Chemical nature of the glycol substance/mixture : Copolymer of butylene phthalate and polyalkylene-ether  
: Additives

No dangerous components to be mentioned according to Regulations (EC) No. 1907/2006 and (EC) No. 453/2010.

The above products are compliant to REACH registration obligations; Registration number(s) may not be provided because substance(s) are exempted, not yet registered under REACH or are registered under another regulatory process (biocide uses, plant protection products), etc.

## SECTION 4: First aid measures

### Description of first aid measures

General advice : Remove from exposure, lie down. Never give anything by mouth to an unconscious person. No hazards which require special first aid measures. If a person vomits when lying on his back, place him in the recovery position.

Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Consult a physician after significant exposure.

Skin contact : Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Obtain medical attention.

Eye contact : Flush eyes with water as a precaution. Obtain medical attention.

Ingestion : No hazards which require special first aid measures. Drink water as a precaution.

## SECTION 5: Firefighting measures

### Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>), Dry powder, Foam, Water

### Special hazards arising from the substance or mixture

Specific hazards during firefighting : Large molten masses may ignite spontaneously in air. Water quenching is good practice. Under conditions giving incomplete combustion, hazardous gases produced may consist of: Carbon monoxide Carbon dioxide (CO<sub>2</sub>) (see also section 10)

### Advice for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus. Wear suitable

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for firefighters protective equipment.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from fire fighting to enter drains or water courses. Burns after ignition without external heat source (IEC 60695-11-10 : HB).

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Personal precautions : Ventilate the area. Refer to protective measures listed in sections 7 and 8.

### Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses. Do not contaminate surface water.

### Methods and materials for containment and cleaning up

Methods for cleaning up : Clean up promptly by sweeping or vacuum. Sweep up or vacuum up spillage and collect in suitable container for disposal.

Other information : Use mechanical handling equipment.

## SECTION 7: Handling and storage

### Precautions for safe handling

Advice on safe handling : Protect from contamination. When opening containers, avoid breathing vapours that may be emanating. Open container only in well-ventilated area. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. General precaution for all plastics and elastomers: For personal protection see section 8. In case of insufficient ventilation, wear suitable respiratory equipment. No special handling advice required.

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

Dust explosion class : no data available

### Conditions for safe storage, including any incompatibilities

Requirements for storage dry areas and containers : No special storage conditions required. Keep container tightly closed in a and well-ventilated place. Protect from contamination.

Further information on storage conditions : none

Advice on common storage : No special restrictions on storage with other products.

Other data : No decomposition if stored and applied as directed.

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## SECTION 8: Exposure controls/personal protection

### Control parameters

If sub-section is empty then no values are applicable.

### Components with workplace control parameters

Type Form of exposure	Control parameters (Expressed as)	Update	Regulatory basis	Remarks
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### Tetrahydrofuran (CAS-No. 109-99-9)

Time Weighted Average (TWA):	150 mg/m <sup>3</sup> 50 ppm	2007	UK. EH40 Workplace Exposure Limits (WELs)	
Short term exposure limit	300 mg/m <sup>3</sup> 100 ppm	2007	UK. EH40 Workplace Exposure Limits (WELs)	
Skin designation:		2007	UK. EH40 Workplace Exposure Limits (WELs)	Can be absorbed through skin.
Skin designation:		12 2009	EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU	Can be absorbed through skin.
Time Weighted Average (TWA):	150 mg/m <sup>3</sup> 50 ppm	12 2009	EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU	Indicative
Short term exposure limit	300 mg/m <sup>3</sup> 100 ppm	12 2009	EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU	Indicative

### Dust (inhalable and respirable fraction)

Time Weighted Average (TWA): Inhalable dust.	10 mg/m <sup>3</sup>	12 2011	UK. EH40 Workplace Exposure Limits (WELs)	
Time Weighted Average (TWA): Respirable dust.	4 mg/m <sup>3</sup>	12 2011	UK. EH40 Workplace Exposure Limits (WELs)	

### Exposure controls

Engineering measures : When hot processing this material, use local and/or general exhaust ventilation to maintain the concentration of vapors and fumes below exposure limits.

Eye protection : Safety glasses with side-shields Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material.

Hand protection : Material: Heat insulating gloves  
Protective gloves (Type : Kevlar<sup>®</sup> - heat resistant, use possible until worn out)

Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear. Regular cleaning of equipment, work area and clothing.

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Protective measures	: No special protective equipment required.
Hygiene measures	: Wash hands before breaks and at the end of workday. General precaution for all plastics and elastomers: Do not breathe fumes evolved from hot polymer.
Respiratory protection	: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Suitable respiratory equipment: Half mask with a particle filter FFP2/FFP3 (EN149)

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Form	: pellets
Colour	: various
Odour	: none
pH	: Not applicable
Melting point/range	: 150 - 225 °C
Flash point	: Not applicable
Ignition temperature	: 338 °C
Thermal decomposition	: > 275 °C
Density	: 1.14 - 1.27 g/cm <sup>3</sup> , Method: ISO 1183
Water solubility	: insoluble

### Other information

No other data to be specially mentioned.

## SECTION 10: Stability and reactivity

<b>Possibility of hazardous reactions</b>	: None. Further information : During drying, cleaning and moulding, small amounts of hazardous gases and/or particulate matter may be released. These may irritate eyes, nose and throat. Large molten masses may give off hazardous gases. Water quenching is good practice. Stable under normal conditions.
<b>Conditions to avoid</b>	: Avoid heating for prolonged periods above the recommended upper processing limit.
<b>Incompatible materials</b>	: Strong acids and oxidizing agents
<b>Hazardous decomposition</b>	: Aldehydes

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**products**      **Tetrahydrofuran Acrolein**

## SECTION 11: Toxicological information

There is no data available for this product.

## SECTION 12: Ecological information

No data is available on the product itself.

## SECTION 13: Disposal considerations

### Waste treatment methods

**Product** : Like most thermoplastic plastics the product can be recycled. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled, when in compliance with local regulations. Do not contaminate ponds, waterways or ditches with chemical or used container.

**Contaminated packaging** : Empty containers should be taken to an approved waste handling site for recycling or disposal.

**European Waste Catalogue number** : 07 02 99: Wastes not otherwise specified.

## SECTION 14: Transport information

### ADR

14.1. UN number: Not applicable

14.2. UN proper shipping name: Not applicable

14.3. Transport hazard class(es): Not applicable

14.4. Packing group: Not applicable

14.5. Environmental hazards: none

14.6. Special precautions for user:

Not classified as dangerous in the meaning of transport regulations.

### IATA\_C

14.1. UN number: Not applicable

14.2. UN proper shipping name: Not applicable

14.3. Transport hazard class(es): Not applicable

14.4. Packing group: Not applicable

14.5. Environmental hazards: none

14.6. Special precautions for user:

Not classified as dangerous in the meaning of transport regulations.

### IMDG

14.1. UN number: Not applicable

14.2. UN proper shipping name: Not applicable

14.3. Transport hazard class(es): Not applicable

14.4. Packing group: Not applicable

14.5. Environmental hazards: none

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14.6. Special precautions for user:  
Not classified as dangerous in the meaning of transport regulations.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code  
Not applicable

## SECTION 15: Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

**Water contaminating class (Germany)** : nwg not water endangering

### Chemical safety assessment

A Chemical Safety Assessment is not required for this/these product(s).

## SECTION 16: Other information

### Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-No.	Chemical Abstracts Service number
CLP	Classification, Labelling and Packaging
EbC50	Concentration at which 50% reduction of biomass is observed
EC50	Median effective concentration
EN	European Norm
EPA	Environmental Protection Agency
ErC50	Concentration at which a 50% inhibition of growth rate is observed
EyC50	Concentration at which 50 % inhibition of yield is observed
IATA_C	International Air Transport Association (Cargo)
IBC	International Bulk Chemical Code
ICAO	International Civil Aviation Organization
ISO	International Standard Organization
IMDG	International Maritime Dangerous Goods
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest observed effect level
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No observed adverse effect level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative and Toxic
STEL	Short term exposure limit

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TWA  
vPvB

Time Weighted Average (TWA):  
very Persistent and very Bioaccumulative

## Restrictions on use

Do not use SSP Manufacturing, Inc. materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from SSP Manufacturing, Inc. under a written contract that is consistent with SSP Manufacturing, Inc. policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your SSP Manufacturing, Inc. representative. You may also request a copy of the SSP Manufacturing, Inc. POLICY Regarding Medical Applications and SSP Manufacturing, Inc. CAUTION Regarding Medical Applications.

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