

# Material Safety Data Sheet

CS: 1.4.93

Page: 1 of 4

Infosafe No™ KP00A Issue Date : September 2011 APPROVED by QENOS

Product Name **UNPIGMENTED HDPE AND MDPE**

Not classified as hazardous

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

**Product Name** UNPIGMENTED HDPE AND MDPE  
**Product Use** Unpigmented HDPE and MDPE for film, moulding and extrusion applications.  
**Company Name** QENOS PTY LTD  
**Address** 471 - 513 Kororoit Creek Road, ALTONA  
VIC 3018 Australia  
**Emergency Tel.** (03) 9258 7333  
**Telephone** Tel: (03) 9258 7333  
**Number/Fax** Fax: (03) 9360 9027  
**Other Names** Name Product Code

HIGH DENSITY POLYETHYLENE (HDPE)  
MEDIUM DENSITY POLYETHYLENE (MDPE)  
GE4760, GF7660, GF7660P, GF7740F2  
GM4755F, GM7655  
HD0390, HD0397UV, HD0490, HD0494  
HD0499UV, HD0690, HD0699UV, HD0790  
HD0811, HD0840, HD1090, HD1099UV  
HD1155, HD2090, HD2990, HD3690, HD5148  
HD6095, BMSS, HDF176X  
HDF187, HDF188, HDF193N, HDF286X  
HDF485, HDF693, HDF695, HDF895  
HDF897X, MD0592; MDF169  
HDSCRAP, HDPURGE

**Email** alan.findlay@qenos.com

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical** Solid  
**Characterization**

<b>Ingredients</b>	<b>Name</b>	<b>CAS</b>	<b>Proportion</b>	<b>Hazard Symbol</b>	<b>Risk Phrase</b>
	PROPRIETARY		0-2 %		
	ADDITIVES				
	POLYETHYLENE	9002-88-4	98-100 %		

## 3. HAZARDS IDENTIFICATION

**Chronic Effects** None known.

**Inhalation** Inhalation of fines may cause irritation of nose and throat. Fumes given off during processing can cause respiratory irritation, headache and nausea.

**Ingestion** No known effects/minimal toxicity. May cause choking if swallowed.

**Skin** Skin contact may result in mechanical injury or abrasion. This is a low risk hazard. Thermal burns may result from exposure to hot material.

**Eye** Pellets, fines and powders may scratch eye surfaces/cause mechanical irritation to eyes.

## 4. FIRST AID MEASURES

**Inhalation** Remove victim to fresh air.

**Ingestion** Not expected to be a problem. If uncomfortable seek medical assistance.

**Skin** Wash contact area with soap and water. Molten material will adhere to skin and cause burns. Cool material as quickly as possible with water and see a physician for prompt removal of the adhering material and treatment of the burn. Do not remove material or clothing from skin. Removal may result in further damage to skin.

**Eye** Flush with water in order to remove particulates. For contact with molten material treat as for skin burns.

# Material Safety Data Sheet

CS: 1.4.93

Page: 2 of 4

Infosafe No™ KP00A Issue Date : September 2011 APPROVED by QENOS

Product Name **UNPIGMENTED HDPE AND MDPE**

Not classified as hazardous

**Advice to Doctor** Advice as per above information.

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media** Carbon Dioxide, Foam, Dry Chemical, Water Fog or Fine Water Spray;

**Specific Hazards** Dust explosion hazard - High concentration of air-borne powders, fines or dust may form explosive mixtures with air. Risk of dust explosion is increased if flammable vapour also present.

Static electricity - May accumulate hazardous static charge when agitated in transfer handling systems.

See section 7 for additional information.

**Precautions in connection with Fire** Firefighters must use self contained breathing apparatus;

**Flash Point** None allocated

**Flammable Limits** None allocated

**LEL**

**Flammability** Polymer may burn in presence of extreme heat and oxygen. Avoid extreme heat.

## 6. ACCIDENTAL RELEASE MEASURES

**Spills & Disposal**

1. Dampen down to prevent spread by wind.
2. Shovel or sweep up spilled material and dispose or recycle.
3. Disposal of recovered material should conform to local regulations.

NOTE: Spilled pellets/powders on surfaces/floors will create slip hazards and should be swept up promptly.

## 7. HANDLING AND STORAGE

Manage Dust explosion Hazard: Minimize production of fines/dust when handling PE polymer. Keep handling areas free of loose dust/powder and fines around handling systems and prevent build up and concentration of fines/dust on flat surfaces such as floors and other surfaces such as ducting, structure beams and ceilings. Manage Static Electricity hazard: Earth (ground) all material handling and transfer equipment to dissipate static electricity. Keep away from uncontrolled heat and other ignition sources. For additional information on control of static and potential dust and fire hazards, refer to NFPA -654 'Standard for the Prevention of Fire and Dust Explosions in the Chemical, Dye Pharmaceutical and Plastics Industries'.

**Packaging** No special requirements.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**National Exposure Standards** NOHSC recommends an 8-hour occupational exposure limit for Total Inhalable Particulates (Dusts not otherwise classified) of 10 mg/m<sup>3</sup>. Qenos recommends a limit of 10 mg/m<sup>3</sup> for nuisance dusts.

**Personal Protective Equipment** Thermal resistant gloves should be worn when handling hot materials. Use safety glasses. Under dusty conditions (concentrations greater than 10 mg/m<sup>3</sup>) approved dust respirators (P2) should be worn to prevent over-exposure by inhalation.

Any personal protection used should meet Australian standards. Approved respiratory protective equipment to AS/NZ1715 and AS/NZ1716 should be worn.

**Eng. Controls** Good general ventilation is required under ordinary conditions of use.

**Technical Protective Measures** NOTES REGARDING THERMAL DEGRADATION of POLYETHYLENE  
When discussing the degradation of Polyethylene it is important to distinguish between the burning and fuming of the product.  
Fumes from Polyethylene: During processing of polyethylene ie whenever the polymer is heated, fumes will be evolved - the extent and content of which will largely depend on the temperature and duration of the exposure.  
Because of the wide range of processing conditions which will influence the degradation process and therefore the composition of the fumes, the precise nature of which will vary according to conditions but likely to include butane and other alkanes and alkenes, the general recommendation is given that the inhalation of fumes should be avoided and that the area be well ventilated ie. the level of fumes evolved should be kept as low as possible. It is recommended that general ventilation be provided at the rate of at least six

# Material Safety Data Sheet

CS: 1.4.93

Page: 3 of 4

Infosafe No™ KP00A Issue Date : September 2011 APPROVED by QENOS

Product Name **UNPIGMENTED HDPE AND MDPE**

Not classified as hazardous

air changes per hour. In some circumstances, based on risk assessment, local exhaust ventilation may be required. (1)

Where continued inhalation of the fumes has occurred or there has been a build up of fumes, a number of effects have been reported relating to irritation of the eyes, respiratory tract and throat. Headaches may also occur.

In certain situations, based on risk management processes, respiratory protection (eg supplied air or organic canister) may also be used to control exposure to polyethylene fume. Only approved respiratory protective equipment to AS/NZ1715 and AS/NZ1716 should be worn.

Burning of Polyethylene: Polyethylene film is a hydrocarbon and therefore will burn readily. It will not however easily self ignite. When burning, polyethylene will drip and run ignited particles. Rolls of polyethylene films and paper, particularly tissue paper, should be stored separately if at all possible - the former is hard to ignite, but burns strongly once alight, the latter will easily ignite and smoulder. Once established, burning polyethylene has at least 50% higher calorific value, therefore the flame will be more than twice the intensity.

If separate storage is not possible, extra high hazard sprinkler system should be concentrated over the area reserved for polyethylene film.

The fire brigade code does not treat rolls of polyethylene film any differently than for paper with respect to hazards from fumes evolved during a fire.

The gases evolved during burning will differ with increasing temperature. However, the major component of the gases will be carbon monoxide, carbon dioxide, very low levels of acrolein, formaldehyde, other aldehydes, ketones, methane, ethane and acetylene. Probably the most attention has been given to the formation of acrolein which can be evolved in toxicologically significant amounts. It is this chemical which causes irritation to the nose, eyes and throat and can cause headaches, and hence the need for any enclosed area to be well ventilated.

It is recommended that fire crew wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.

(1) UK HSE Publication; Plastics Processing Sheet No 13

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Translucent pellets or powder.
<b>Melting Point</b>	120 - 135°C
<b>Boiling Point</b>	None allocated
<b>Specific Gravity (H2O=1)</b>	None allocated
<b>Vapour Pressure</b>	None allocated
<b>Flash Point</b>	None allocated
<b>Flammability</b>	Polymer may burn in presence of extreme heat and oxygen. Avoid extreme heat.
<b>Flammable Limits</b>	None allocated
<b>LEL</b>	
<b>Other Information</b>	Density (Range): 0.930 - 0.970 g/cm <sup>3</sup> Water Solubility: Negligible

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	STABILITY (Thermal, Light, etc): Stable;
<b>Hazardous Polymerization</b>	Will not occur
<b>Materials to Avoid</b>	Strong oxidising agents;
<b>Hazardous Decomposition Products</b>	Carbon Monoxide, Aldehydes, Acetic Acid
<b>Hazardous Reaction</b>	STABILITY (Thermal, Light, etc): Stable; CONDITIONS TO AVOID: Extreme Heat; INCOMPATIBILITY (Materials to Avoid): Strong oxidising agents;

# Material Safety Data Sheet

CS: 1.4.93

Page: 4 of 4

Infosafe No™ KP00A Issue Date : September 2011 APPROVED by QENOS

Product Name **UNPIGMENTED HDPE AND MDPE**

Not classified as hazardous

**Conditions to Avoid**

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, Aldehydes ,Acetic Acid;  
HAZARDOUS POLYMERISATION: Will not occur.  
Extreme Heat

**11. TOXICOLOGICAL INFORMATION**

**Inhalation** Inhalation of fines may cause irritation of nose and throat. Fumes given off during processing can cause respiratory irritation, headache and nausea.  
**Ingestion** No known effects/minimal toxicity. May cause choking if swallowed.  
**Skin** Skin contact may result in mechanical injury or abrasion. This is a low risk hazard. Thermal burns may result from exposure to hot material.  
**Eye** Pellets, fines and powders may scratch eye surfaces/cause mechanical irritation to eyes.  
**Chronic Effects** None known.

**12. ECOLOGICAL INFORMATION**

**Environ. Protection** Pellets of resin considered environmentally inert.

**13. DISPOSAL CONSIDERATIONS**

Dispose of in compliance with Federal, state and local government regulations. Disposal options include: recycling, incineration and landfilling.

**14. TRANSPORT INFORMATION**

**Storage and Transport** Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.  
The products listed in this MSDS are not classified as dangerous goods in the Australian Dangerous Goods Code.

**15. REGULATORY INFORMATION**

All components listed in the AICS.  
**Poisons Schedule** Not Scheduled  
**Packaging & Labelling** No special requirements.

**16. OTHER INFORMATION**

**Manufacturers Advice** Conveying lines and equipment in material handling systems should be grounded to eliminate or reduce the build up of static electricity. Avoid sources of ignition in areas where fines may occur.  
**Poisons Schedule** Not Scheduled  
**Other Information** This MSDS summarises to our best knowledge at the date of issue, the health, safety and environmental hazards of the material and general guidance on how to safely handle the material in the workplace. Since Qenos cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.  
If clarification or further information is needed, the user should contact their Qenos representative or Qenos at the contact details on page 1.  
...End Of MSDS...

© Copyright ACOHS Pty Ltd

Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd. The compilation of MSDS's displayed is the intellectual property of Acohs Pty Ltd.

Copying of any MSDS displayed is permitted for personal use only and otherwise is not permitted. In particular the MSDS's displayed cannot be copied for the purpose of sale or licence or for inclusion as part of a collection of MSDS without the express written consent of Acohs Pty Ltd.