

Moplen HP501L

Polypropylene, Homopolymer

Product Description

"Moplen" HP501L is a homopolymer for injection moulding which exhibits a good stiffness/impact balance at ambient temperature. The main applications of "Moplen" HP501L are caps & closures, housewares and furniture.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Africa-Middle East, Latin America
Processing Method	Injection Moulding, Thermoforming
Features	Homopolymer, Impact Resistance, Good, Stiffness, Good
Typical Customer Applications	Furniture, Injection Moulded Caps and Closures, Housewares

Typical Properties	Method	Value Unit
Physical		
Density	ISO 1183	0.9 g/cm ³
Melt flow rate (MFR) (230°C/2.16Kg)	ISO 1133	6.0 g/10 min
Melt volume flow rate (230°C/2.16Kg)	ISO 1133	8.0 cm ³ /10min
Mechanical		
Tensile Modulus	ISO 527-1, -2	1500 MPa
Tensile Stress at Yield	ISO 527-1, -2	34 MPa
Tensile Strain at Break	ISO 527-1, -2	50 %
Tensile Strain at Yield	ISO 527-1, -2	9 %
Impact		
Charpy unnotched impact strength (23 °C, Type 1, Edgewise)	ISO 179	140 kJ/m ²
Charpy notched impact strength (23 °C, Type 1, Edgewise, Notch A)	ISO 179	3.5 kJ/m ²
Hardness		
Ball indentation hardness (H 358/30)	ISO 2039-1	74 MPa
Thermal		
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	85 °C
Vicat softening temperature (B50 (50°C/h 50N))	ISO 306	90 °C
(A50 (50°C/h 10N))		154 °C

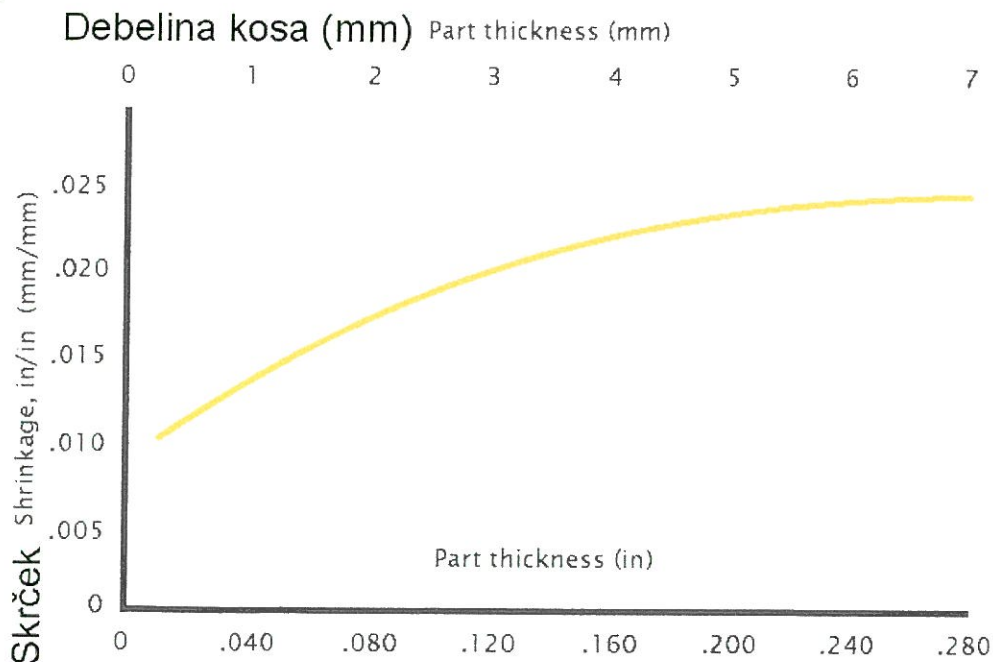


Fig. 6 Pro-fax polypropylene shrinkage variation

Product Data

Moplen HP501L

Moplen HP501L is a homopolymer for injection moulding.

Moplen HP501L exhibits a good stiffness/impact balance at ambient temperature. The main applications of *Moplen HP501L* are caps, closures, housewares and furniture.

Moplen HP501L is suitable for food contact.

Typical Resin Properties		Method	Unit	Value (*)
Melt Flow Rate (230/2.16)		ISO 1133	g/10 min	6
Melt Volume Rate (230/2.16)		ISO 1133	cm ³ /10 min	8
Tensile Modulus		ISO 527-2	MPa	1500
Tensile Stress at Yield		ISO 527-2	MPa	34
Tensile Elongation at Yield		ISO 527-2	%	9
Tensile Elongation at Break		ISO 527-2	%	>50
Charpy Impact Strength, Unnotched	23 °C	ISO 179/1eU	kJ/m ²	140
Charpy Impact Strength, Notched	23 °C	ISO 179/1eA	kJ/m ²	3.5
Ball Indentation Hardness (H 358/30)		ISO 2039-1	MPa	74
Heat Deflection Temperature, HDT/B		ISO 75-2	°C	85
Vicat Softening Temperature, VST/A50		ISO 306	°C	154
Vicat Softening Temperature, VST/B50		ISO 306	°C	90
Density (23 °C)		ISO 1183	g/cm ³	0.9

(*) The property values shown are based on a limited number of tests and, therefore, should not be construed as product specifications.

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you can find out more about Basell by contacting our website at : <http://www.basell.com>

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BASELL USA INC

PO BOX 15439 WILMINGTON DE 19850

Material Designation: **HP50(bb)(d)**

Product Description: Polypropylene (PP), designated "Moplen" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
ALL	1.5	HB	4	0	65	65	65	-	-
	3.0	HB	2	0	65	65	65	-	-
	6.0	HB	2	0	65	65	65	-	-

CTI: -

HVTR: -

D495: -

IEC BP: -

(bb) Representing one numerical character, (0, 1, or 2), unless specifically listed, denoting additives contained in the product.

(d) Representing a letter code (C, D, E, G, H, J, K, L, M, N, P, R, S, T, U, V, W, X or Y), unless specifically listed, denoting the melt flow rate.

Report Date: 02/18/1998

Underwriters Laboratories Inc®

977624001

UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.

Regulatory Affairs Product Stewardship Information / Certification
Data Sheet
(RAPIDS)

Moplen HP501L

Product Manufacturer

This product is manufactured by Basell Europe.

Chemical Inventories

All ingredients in this product are in compliance with the following chemical inventories:

United States: Toxics Substances Control Act Inventory (TSCA)

Canada: Domestic Substances List (DSL)

Europe: European Inventory of Existing Chemical Substances (EINECS)

Australia: Australian Inventory of Chemical Substances (AICS)

Korea: Korean Existing Chemicals List (KECL)

Japan: Japanese Inventory (ENCS)

Philippines: Philippines Inventory of Chemicals and Chemical Substances (PICCS)

This product has no special requirements under US TSCA (e.g. consent orders, test rules, 12(b) requirements, etc.).

Food Contact

European Union (EU) Food Contact

The composition of this product complies with the following Legislations, Recommendations or Communications for the production of food packaging.

AUSTRIA: "K.V.O." N°775, 23/09/1994 as amended at last by BGBl 22/02/2001 - Teil. II - n.93

BELGIUM: "Arrete royal du 10 decembre 2002 (amending Arrete royal du 11 mai 1992).

DENMARK: Foededirektorates Bekendtgorelse NÅ° 111 (20/02/2003).

FINLAND: "KTM", Paatos 953/2002 of 12.11.2002.

FRANCE: "Materiaux au contact des aliments et de denre destine a l'alimentation humaine" Brochure n.1227 edition Janvier 1994 as updated. Arrete du 14 Septembre 1992 (as modified at last by Arrete 02/01/2003).

GERMANY:

Bedarfsgegenstandeverordnung; Stand: 21.12.2000

BfR is not applicable for this resin

GREECE: AXE Decision n.458/2002

IRELAND: Statutory Instruments N°542 of 2002.

ITALY: "Decreto Ministeriale del 21/03/1973" amended on 26/4/1993 : D.M. N.220 and following updates (last update: D.M. N.123 of 28/03/2003).

LUXEMBOURG: "Reglement Grand-Ducal" du 27/01/2001.

NORWAY: "Kongelig resolusjon" of 11 March 1976 and updated 21/12/1993.

PORTUGAL: "Decreto Lei" N.4/2003 of 10/01/2003.

SPAIN: Resolucion de 04/11/1982 amended by Real Decreto 442/2001.

SWEDEN: Food regulation SLV FS 1993:18 as updated by SLV FS 2003:2.

THE NETHERLANDS: " Staatscourant n.183 of 24.09.2002.

UNITED KINGDOM: "Plastics for food contact applications" Revised Ed.1986. Statutory Instruments, 1992 N.3145 and followings updates (last update: S.I. 2002/N.3008).

SWITZERLAND: KsV, 26 June 1995 as modified by KsV, 30/01/1998.

CZECH REPUBLIC: Regulation of the Ministry of Health N.38/2001

The monomers used to produce the resin are listed in EU Directive 2002/72 without any use limitations.

The additives for which a Qm is specified by the regulations are the responsibility of Basell.

There are NO SMLs specified by the regulations for the additives in this resin.

Processing aid

There could be a processing aid for which a SML is established. The SML will not be exceeded even with a 100% (worst case) migration for a container up to 0,25 mm. thick.

EU Directive 2002/72/EC , which applies to all EU Member States, specifies 10 mg/dm² as the maximum overall migration from finished plastic food contact articles. This is the responsibility of the converter.

In accordance with EU Directive 2002/72/EC the migration should be measured using the actual foodstuff or the appropriate food simulants at the real time/temperature conditions of use, according to the rules specified in EU Directives 97/48/EC (amending 82/711/EC) and 85/572/EC.

We remind you that the users must verify that the finished items, manufactured according to good technology practice, must not modify the organoleptic properties of the food.

US Food and Drug Administration (FDA)

The base resin in this product meets the FDA requirements contained in the Code of Federal Regulations in 21 CFR 177.1520(a)(1)(i) and (c)1.1a. According to our information, all other ingredients used in this product meet the requirements of their respective FDA regulations and 21 CFR 177.1520(b). This product meets the FDA criteria in 21 CFR 177.1520 for food contact applications, including cooking, listed under conditions of use A through H in 21 CFR 176.170(c), Table 2 and can be used in contact with all food types as listed in 21 CFR 176.170(c), Table 1.

Tallow

Tallow derived additives may be used in the manufacture of this product.

Bovine Spongiform Encephalopathy (BSE)/Transmissible Spongiform Encephalopathy (TSE)"/"Mad Cow"

APME STATEMENT ON THE USE OF TALLOW DERIVATIVES FOR FOOD CONTACT PLASTICS - January 2002

The concerns relative to BSE/TSE in the context of plastics materials used in contact with food are linked to the use of additives of animal origin: tallow derivatives. These products (fatty acids, fatty alcohols, metallic soaps, fatty amines, fatty amides, fatty acid esters, glycerine) are incorporated into plastics as

lubricants, slip agents, anti-static agents as well as emulsifiers, anti-oxidants or corrosion inhibitors. They are primarily extracted from tissues of ovine or bovine origin. The tallow derivatives used for the production of plastics materials undergo a series of severe process steps during manufacture:

Normally, pre-treatment of tallow and/or animal fat with strong acids

Hydrolytic cleavage at temperatures above 200°C, under pressure, for more than 20 minutes, yielding glycerine and fatty acids

Transesterification of the fatty acids with methanol at temperatures above 200°C, under pressure, for more than 20 minutes, yielding fatty acid methyl ester

Reduction of fatty acid methyl esters 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 others) in the Commission Directive 2000/6/EC and also in the updated report of APAG of April 2001, the above-mentioned treatments do ensure a complete inactivation of any TSE/BSE 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 complete protection of people's health in respect of TSE/BSE for plastic materials used in contact with food. (For official copy of the APME statement, contact Basell).

Kosher

We do not certify our resins to be Kosher or in compliance with Kosher requirements.

Drug Master File (DMF)

Information on this product is not listed in a DMF. Contact the sales representative if this is a need.

European Pharmacopeia (EP)

This product cannot be certified for compliance to EP requirements.

US Pharmacopeia (USP)

This product cannot be certified for USP

Latex

"Natural rubber latex", "dry natural rubber", "synthetic latex" or "rubber that contains natural rubber" are not used in the manufacture of or the formulation of this product.

Heavy metals (ELV Directive 2000/53/EC)

The quantity (statistically evaluated) of Cd, Pb, Cr, Hg present in this grade is deemed below the limits given in Annex II (Note) of the Decision 2002/525/EC of June 27th (amending Annex II of Directive 2000/53) which establishes: 0.1% Lead 0.1% Chromium 0.1% Mercury 0.01% Cadmium

Coalition of Northeastern Governors (CONEG)

Cadmium, chromium, lead and mercury are not used in the manufacture of or the formulation of this product as well as meeting the CONEG requirements of less than 100 ppm for total incidental cadmium, chromium, lead and mercury.

European Union (EU) Directive - Packaging and Packaging Waste - 94/62/EC (as amended)

Cadmium, chromium, lead and mercury are not used in the manufacture of or the formulation of this product. This product meets the year 2001 requirements of less than 100 ppm for total incidental cadmium, chromium, lead and mercury. In addition, this product has the potential to be recycled according to these requirements.

California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product presents "no significant risk" to the people of California. This product contains no substances known to the State of California to cause reproductive toxicity at a level of exposure subject to the requirements of Proposition 65.

Butylated Hydroxytoluene (BHT)

BHT is not used in the manufacture of or formulation of this product. However, this product has not been tested for this chemical substance.

Ozone Depleting Chemicals (ODCs)

ODCs are not used in the manufacture of or formulation of this product.

Toys

This product complies with the requirements in CEN Standard EN71.3.

The phthalates listed in article 1 of Decision 1999/815/EC are not intentionally added in the manufacture of or the formulation of this product. The phthalates are: DINP (di-iso-nonyl phthalate) DEHP (di-(2-ethylhexyl) phthalate) DBP (di-n-butyl phthalate) DIDP (di-iso-decyl phthalate) DNOP (di-n-octyl phthalate) BBP (butylbenzyl phthalate)

Phthalates

The phthalates listed in Italian Ministry of Health Decree no538, dated December 17, 1999, are not intentionally added in the manufacture of or the formulation of this product. The phthalates are: DINP (di-iso-nonyl phthalate) DEHP (di-(2-ethylhexyl)phthalate) DBP (di-n-butyl phthalate) DIDP (di-iso-decyl phthalate) BBP (butylbenzyl phthalate) DIOP (di-iso-octyl phthalate) DEP (di-ethyl phthalate) DCHP (di-cyclo-hexyl phthalate) DMCHP (di-methyl-cyclo-hexyl phthalate) DMEP (di-methoxy-ethyl phthalate)

Basell is aware of the publicity about phthalate plasticizers. Phthalate plasticizers are in general used in specific non-olefinic resin systems to soften these resins and make them flexible. When phthalate plasticizers are added, they can constitute up to 50% of the resultant plastic material. Basell does not use any plasticizers in the resins it supplies. Polyolefins do not require the use of plasticizers to make them soft and flexible. Those phthalate plasticizers that have been associated with potential health issues, specifically di(2-ethylhexyl) phthalate (DEHP), diisononyl phthalate (DINP), dioctyl phthalate (DOP) and butyl benzyl phthalate (BBP), are not used by Basell in the manufacture of or formulation of its resins.

All Basell operations are guided by our commitment to be a responsible supplier, always respecting the health and safety of our employees, our contractors, our customers and the community, as well as the quality of the environment in which we live and operate. Basell is a firm supporter of the chemical industry's Responsible Care® program and the Product Stewardship code. Basell supplies polypropylene resins that are safe when used properly for their intended applications.

In keeping with the principles of Responsible Care®, Basell is supporting industry efforts to study chemicals for their potential to cause endocrine disruption.

As for this product, a phthalate compound, diisobutyl phthalate (DIBP), is a minor component of the catalyst system used to manufacture some of the base polyolefin resins. This is typical of polypropylene resins produced with high mileage catalysts. An impurity in the DIBP is di-n-butyl phthalate (DNBP), sometimes referred to as dibutyl phthalate (DBP). During processing, DIBP reacts and converts to two related phthalate compounds diethyl phthalate (DEP) and ethyl isobutyl phthalate. None of the four phthalates has been determined to be human carcinogens or endocrine disruptors at the low levels as suggested by environmentalists. Testing of several resins has resulted in the identification of residual phthalate content no more than 25 parts per million.

To put these results in perspective, plastic materials that require phthalate plasticizers, referred to above, can have up to 500,000 parts per million (50%) of the phthalate plasticizer in them. Further testing with food simulants (per EC Directives 2002/72 and 97/48) has resulted in phthalates not detected at a sensitivity of 20 parts per billion (0.002 parts per million).

Acrylamide

Acrylamide (CAS number 79-06-1) is not used in the manufacture of or the formulation of this product. However, we do not test this product for acrylamide.

Aromatic Amines

Aromatic amines are not used in the manufacture of or formulation of this product. However, this product has not been tested for these chemical substances.

Asbestos

Asbestos is not used in the manufacture of or formulation of this product. However, this product has not been tested for this chemical substance.

Bisphenol A

Bisphenol A is not used in the manufacture of or the formulation of this product. However, this product has not been tested for this chemical substance.

Dioxin

Dioxin is not used in the manufacture of or formulation of this product. Dioxin is not known to be formed during processing of this product.

Nonylphenol

Nonylphenol is not used in the manufacture of or the formulation of this product. However, this product has not been tested for this chemical substance.

Organo-tin Compounds

Tributyl-tin (TBT), dibutyl-tin (DBT), monobutyl-tin (MBT) or any other organo-tin compounds are not used in the manufacture of or the formulation of this product.

However, this product has not been tested for these chemical substances.

Polychlorinated Biphenyls (PCBs) ,Polybrominated biphenyls (PBBs) and Polychlorinated Terphenyls (PCTs)

PCBs ,PBBs and PCTs are not used in the manufacture of or formulation of this product. However, this product has not been tested for these chemical substances.

Vinyl Chloride

Vinyl chloride (CAS number 75-01-4) is not used in the manufacture of or the formulation of this product. However, we do not test this product for vinyl chloride.

BADGE/NODGE/BFDGE

BADGE, NODGE and BFDGE are not used in the manufacture of or the formulation of this product.

Epoxy Resins - Directive 2002/16/EC

Epoxy resins are not used in the manufacture of or the formulation of this product.

Switzerland "VOC-LENKUNGSABGABE"

This product contains less than 3% VOC's of the substances in the positive lists of the above Regulations

Composting - CEN Standard prEN 13432

This product is not suitable for composting

Energy Recovery - CEN Standard prEN 13431

The calorific gain from polypropylene in an energy recovery process is 24 MJ/kg.

Ultimately customers must make their own determination that their use of our product is safe, lawful (except as provided in the above certifications) and technically suitable in their intended applications. Because of possible changes in the law and in regulations, Basell recommends that customers continuing to use our product verify status every year from the issue date of the RAPIDS.

Certified for Basell by:



Patrizia Busi
Regulatory Affairs Manager - Europe

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Approved on Wednesday, July 30, 2003. Valid for 1 year.

Material Safety Data Sheet

According to 2001/58EEC

Printing date 06.09.2002

Version 2

Reviewed on 27.08.2002

• * 1 Identification of substance:

○ Product details:

○ Trade name: Moplen HP501L

○ Article number: 11178A

○ Application of the substance / the preparation Synthetic resin

○ Manufacturer/Supplier: Basell Polyolefins Company GmbH

○ Informing department:

Regulatory Affairs Department

Research center G. Natta, Basell Poliolefine Italia s.pa., 44100 - Ferrara (Italy)

Phone: +39/0532/468653 ; h 8.30-17.00

Fax.: +39/0532/468820

• * 2 Composition/Data on components:

○ Chemical characterization:

CAS No. Designation:

9003-07-0 1-propene homopolymer

○ Chemical characterization

○ Description:

Mixture of the substances listed below with harmless additives
1-propene-homopolymer

• * 3 Hazards identification

○ 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 charging when used.

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

○ Classification system

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

• 4 First aid measures

○ 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.

o **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.

o **After eye contact**

Rinse opened eye for several minutes under running water.

o **After swallowing**

Get medical advice if necessary.

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

• **5 Fire fighting measures**

o **Suitable extinguishing agents**

Water haze

Foam

Carbon dioxide

Chemical powder

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

o **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).

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

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

• **6 Accidental release measures**

o **Person-related safety precautions:**

No specific measures are necessary.

See point 8

o **Measures for environmental protection:**

No special measures required.

See points 12 and 13.

o **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.

o **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

o **Additional information:** see point(s) 7, 9.

o **Personal protective equipment**

o **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.

o **Breathing equipment:**

If appropriate ventilation is not available use face mask when handling the molten product.

o **Protection of hands:** Heat resistant gloves

o **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.

o **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.

o **Eye protection:** Not required.

o **Body protection:** Normal overalls

• **9 Physical and chemical properties:**

o **General Information**

o **Form:** Granulate

o **Colour:** White

o **Odour:** Odourless

o

	Value/Range	Unit	Method
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o **Change in condition**

o **Melting point/Melting range:**

160-163 ° C

o **Flash point:**

Not applicable (see attachment to guideline 92/69/EEC, A.9)

o **Ignition temperature:**

> 400 ° C

o **Decomposition temperature:**

> 300 ° C

o **Danger of explosion:**

See point(s) 7.

Product is not explosive.

o **Density**

at 20 ° C

0.89-0.91 g/cm³

o **Solubility in / Miscibility with**

o **Water:**

Insoluble

o **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:**

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