SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Metocene MF650Y, BULK
CAS Number:		9003-07-0
Chemical characterization	:	Polypropylene
Chemical Name	:	Polypropylene Homopolymer
Product Use Description	:	Molded plastic applications.

Company	:	Equistar Chemicals, LP LyondellBasell Tower, Suite 700 1221 McKinney St. P.O. Box 2583 Houston Texas 77252-2583
Telephone	:	Customer Service 888 777-0232 Product Safety 800 700-0946
Emergency telephone	:	CHEMTREC USA 800-424-9300 EQUISTAR 800-245-4532
E-mail address		product.safety@lyondellbasell.com

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

This material is NOT HAZARDOUS by OSHA Hazard Communication definition.

CAUTION.

Physical state	:	solid
Color	:	Translucent to white
Odor	:	Faint, mild hydrocarbon odor.
Hazard Summary	:	Dust may form explosive mixtures with air. At process temperatures irritating fumes may be produced. Molten polymer may cause thermal burns. Slipping hazard if spilled on hard smooth walking surface. The material can accumulate static charges which could be a source of ignition.

Potential Health Effects

Primary Routes of Entry	:	Eye.

Inhalation.
Skin.

Aggravated Medical Condition	:	No known conditions are aggravated by this material.
Inhalation	:	Inhalation of process fumes and vapors may cause soreness in the nose and throat and coughing. "Nuisance dust" such as polymer dust typically exhibit no significant health effect when they are reasonably controlled. Exposure to high concentrations of dust may cause slight irritation by mechanical action.
Skin	:	Molten polymer may cause thermal burns.
Eyes	:	Mechanical irritation is possible.
Ingestion	:	Ingestion not a likely route of exposure.
Chronic Exposure	:	No known chronic health effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Component	CAS-No.	Weight %
Polypropylene Homopolymer	9003-07-0	98.0 - 100.0 %
Additives	Mixture	0.0 - 2.0 %

SECTION 4. FIRST AID MEASURES

First aid procedures

General advice	:	Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. For specific information refer to the Emergency Overview in Section 2 of this MSDS.
If inhaled	:	Remove person to fresh air. If signs/symptoms continue, get medical attention.
In case of skin contact	:	If molten material contacts the skin, immediately flush with large amounts of water to cool the affected tissue and polymer. Do not attempt to peel polymer from skin. Obtain immediate emergency medical attention if burn is deep or extensive.

In case of eye contact	:	Flush eyes thoroughly with water for several minutes and seek medical attention if discomfort persists.
If swallowed	:	Adverse health effects due to ingestion are not anticipated.

SECTION 5. FIRE-FIGHTING MEASURES

Flammable properties

Autoignition temperature	:	> 572 °F (300 °C)
Lower explosion limit	:	Not applicable.
Upper explosion limit	:	Not applicable.

Fire fighting

Suitable extinguishing media	:	SMALL FIRE: Use dry chemical, CO2, water spray or regular foam LARGE FIRE: Use water spray, water fog or foam. DO NOT use straight streams
Unsuitable extinguishing media	:	High volume water jet
Further information	:	Not normally combustible, but will decompose under fire conditions. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Heat from fire may melt, decompose polymer, and generate flammable vapors. Move containers from fire area if you can do it without risk. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. Cool containers with flooding quantities of water until well after fire is out.

Protective equipment and precautions for firefighters

Specific hazards during fire fighting	:	Polyolefin dust particles in the atmosphere are combustible and may be explosive. Keep away from heat and sources of ignition.
Special protective equipment for fire-fighters	:	Wear an approved positive pressure self-contained breathing apparatus and firefighter turnout gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Equip responders with proper protection. Potential dust explosion hazard. Avoid generating dust.

Creates dangerous slipping hazard on any hard smooth surface.

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Methods for containment / Methods for cleaning up : On land, sweep/shovel into suitable disposal containers or vacuum using equipment which avoids ignition risk.
On water, material is insoluble; collect and contain as any solid.
All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.

SECTION 7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid accumulation of dust in enclosed space. Use in well-ventilated area.
Static discharge (spark) in high dust environments may be explosive.
Electrostatic charge may build up during handling. Equipment should be grounded and bonded.
Metal containers involved in the transfer of this material should be grounded and bonded.
All electrical equipment should be grounded and conform to applicable electric codes and regulatory requirements.
Material creates dangerous slipping hazard on hard surfaces.
After handling, always wash hands thoroughly with soap and water.

Storage

Requirements for storage areas and containers : Store in a dry location.
Use good housekeeping practices during storage, transfering and handling. Process enclosures and adequate ventilation should be used to avoid excessive dust accumulation.
Store away from excessive heat and away from strong oxidizing agents.
Keep container closed to prevent contamination.
Take measures to prevent the build up of electrostatic charge.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value	Control parameters	Update	Basis

Materials that can be formed when handling this product: non-specified (inert or nuisance) dust		TWA	10 mg/m3	2005	US (ACGIH)
		TWA	3 mg/m3	2005	US (ACGIH)
Materials that can be formed when handling this product: non-specified (inert or nuisance) dust		TWA	15 mg/m3	2005	US (OSHA)
		TWA	5 mg/m3	2005	US (OSHA)

Engineering measures

Engineering measures : Engineering controls, preferably enclosed systems, should be used whenever feasible to maintain exposures below acceptable criteria. When such controls are not feasible, or sufficient to achieve full conformance, other engineering controls such as local exhaust ventilation should be used.
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Personal protective equipment

Eye protection : Dust service goggles should be worn to prevent mechanical injury or other irritation to eyes due to airborne particles which may result from handling this product.

Hand protection : Wear heat protective gloves and clothing if there is a potential for contact with heated material.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection	:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use appropriate respiratory protection where atmosphere exceeds recommended limits.
Hygiene measures	:	Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Take off contaminated clothing and wash before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	:	solid
Color	:	Translucent to white
Odor	:	Faint, mild hydrocarbon odor.

Safety data

Lower explosion limit	:	Not applicable.
Upper explosion limit	:	Not applicable.
Flammability (solid, gas)	:	Not Classified. Polymer will burn but does not easily ignite.
Oxidizing properties	:	No Data Available.
Autoignition temperature	:	> 572 °F (300 °C)
pH	:	Not applicable.
Freezing point	:	122 - 284 °F (50 - 140 °C)
Boiling point	:	Not applicable.
Vapor pressure	:	Not applicable.
Density	:	< 1 g/cm3
Water solubility	:	Insoluble.
Partition coefficient: n-octanol/water	:	Specific data not available.

Viscosity, dynamic	:	Not applicable.
Relative vapor density	:	Not applicable.
Evaporation rate	:	Not applicable.
Remarks - Other information	:	No additional information available.

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	:	Avoid contact with strong oxidizers, excessive heat, sparks or open flame.
Materials to avoid	:	Material may be softened by some hydrocarbons.
Hazardous decomposition products	:	Not expected to decompose under normal conditions.
Thermal decomposition	:	Carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and alcohols may be formed.
Hazardous reactions	:	Will not occur. The product is stable.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	Mice given an acute oral dose of 8 g/kg of Polypropylene showed no noticeable toxic effects.
Acute inhalation toxicity	:	Inhalation of polypropylene dust may cause lung inflammation. Prolonged inhalation of thermal degradation products from polypropylene may cause neurological effects.
Acute dermal toxicity	:	Not expected to be a skin absorption hazard.
Skin irritation	:	Not a skin irritant.
Eye irritation	:	Mechanical irritation is possible.
Sensitization	:	Not expected to be a sensitizer.
Repeated dose toxicity	:	No adverse health effects were noted on the digestive system of test animals when fed up to 20% of an oligomeric

polypropylene (molecular weight of 800) for two years.

Target Organ Systemic Toxicant - Repeated exposure

: No adverse health effects were noted on the digestive system of test animals when fed up to 20% of an oligomeric polypropylene (molecular weight of 800) for two years.

Toxicology Assessment

CMR effects : **Carcinogenicity:**
Not listed by IARC, NTP, OSHA or EPA.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Bioaccumulation : This material is not expected to bioaccumulate.

Additional advice Environmental fate and pathways : This material is not volatile and insoluble in water.

Biodegradability : Not expected to be biodegradable.

Further information on ecology

Additional ecological information : Ecotoxicity is expected to be minimal based on the low water solubility of polymers.

No data available on this product. However, birds, fish and other wildlife may eat pellets which may obstruct their intestinal tracts.

SECTION 13. DISPOSAL CONSIDERATIONS

Further information : All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.
Recycle if possible.

SECTION 14. TRANSPORT INFORMATION

Proper shipping name POLYPROPYLENE, OTHER THAN LIQUID, not regulated

SECTION 15. REGULATORY INFORMATION

Notification status

All ingredients are on the following inventories or are exempted from listing

Country	Notification
Australia	AICS
Canada	DSL
China	IECS
European Union	EINECS
Japan	ENCS/ISHL
Korea	ECL
Philippines	PICCS
United States of America	TSCA
New Zealand	NZIoC

Contact product.safety@lyondellbasell.com for additional global inventory information.

SARA 302/304

Component	TPQ	RQ
1,4-Dioxane		100 lbs
Ethylene Oxide	1000lbs	10 lbs

SARA 313

Component	Reporting Threshold
1,4-Dioxane	0.1%
Ethylene Oxide	0.1%

State Reporting

Known to the State of California to cause cancer.

123-91-1 1,4-Dioxane (November 18, 2011)

75-21-8 Ethylene Oxide (September 28, 2007)

Known to the State of California to cause birth defects.

75-21-8 Ethylene Oxide (August 7, 2009)

Known to the State of California to cause reproductive toxicity in males.

75-21-8 Ethylene Oxide (August 7, 2009)

Known to the State of California to cause reproductive toxicity in females.

75-21-8 Ethylene Oxide (September 12, 2008)

This product contains the following chemicals regulated by New Jersey's Worker and Community Right to Know Act:

123-91-1 1,4-Dioxane

75-21-8 Ethylene Oxide

This product contains the following chemicals regulated by Massachusetts' Right to Know Law:

123-91-1 1,4-Dioxane

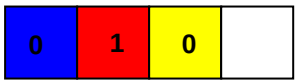
75-21-8 Ethylene Oxide

This product contains the following chemicals regulated by Pennsylvania's Right to Know Act:
123-91-1 1,4-Dioxane
75-21-8 Ethylene Oxide

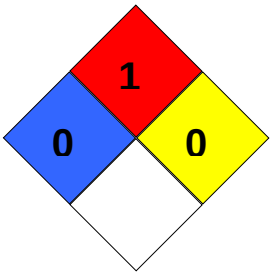
SECTION 16. OTHER INFORMATION

Further information

HMIS Classification : Health Hazard: 0
Flammability: 1
Reactivity: 0



NFPA Classification : Health Hazard: 0
Fire Hazard: 1
Reactivity Hazard: 0



Material safety datasheet sections which have been updated:
First Edition November 29 2012

Disclaimer

CAUTION DO NOT USE EQUISTAR CHEMICALS, LP MATERIALS IN APPLICATIONS INVOLVING IMPLANTATION WITHIN THE BODY; DIRECT OR INDIRECT CONTACT WITH THE BLOOD PATHWAY; CONTACT WITH BONE, TISSUE, TISSUE FLUID, OR BLOOD; OR PROLONGED CONTACT WITH MUCOUS MEMBRANES. EQUISTAR CHEMICALS, LP MATERIALS ARE NOT DESIGNED OR MANUFACTURED FOR USE IN IMPLANTATION IN THE HUMAN BODY OR IN CONTACT WITH INTERNAL BODY FLUIDS OR TISSUES. EQUISTAR CHEMICALS, LP WILL NOT PROVIDE TO CUSTOMERS MAKING DEVICES FOR SUCH APPLICATIONS ANY NOTICE, CERTIFICATION OR INFORMATION NECESSARY FOR SUCH MEDICAL DEVICE USE REQUIRED BY FDA REGULATION OR ANY OTHER STATUTE. EQUISTAR CHEMICALS, LP MAKES NO REPRESENTATION, PROMISE, EXPRESS WARRANTY OR IMPLIED WARRANTY CONCERNING THE SUITABILITY OF THESE MATERIALS FOR USE IN IMPLANTATION IN THE

Disclaimer

HUMAN BODY OR IN CONTACT WITH INTERNAL BODY TISSUES OR FLUIDS.

Information is correct to the best of our knowledge at the date of the MSDS publication.

The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Language Translations

This document may be available in languages other than English.