PRODUCT NAME: MOBIL HTA002

PAGE 1

SDS NUMBER: HDHE-K-00327

REVISION:

12 AUGUST 2000

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

IDENTIFICATION OF THE SUBSTANCE: MOBIL

HTA002

This is a polymer

CHEMICAL FAMILY: POLYETHYLENES

PRODUCT DESCRIPTION:

Clear to opaque, white to off-white pellets

SUPPLIER:

EXXON CHEMICAL LTD.

4600 PARKWAY P.O. BOX 122

FAREHAM - HAMPSHIRE, P015 7AP (ENGLAND)

Telephone: 01489-884400 01489-884466

EMERGENCY TELEPHONE NUMBER: 02380-891558 (office hours)

02380-891558 (outside office hours)

2 COMPOSITION/INFORMATION ON INGREDIENTS

HEALTH HAZARD COMPONENTS : NONE

3 HAZARDS IDENTIFICATION

PHYSICAL AND CHEMICAL HAZARDS / FIRE AND EXPLOSION HAZARDS

- o Low Hazard. Material can form flammable mixtures or can burn only on heating to temperatures at or above the flash point.
- o Decomposes. Flammable/toxic gases will form upon decomposition. See Section 10 "Stability and Reactivity".
- o Toxic gases will form upon combustion. See Section 5 "FIRE-FIGHTING

PRINT DATE: 7 SEPTEMBER 2000

Cont.

^{*} ExxonMobil Chemical includes ExxonMobil Chemical Company and its stewarded affiliates.

PRODUCT NAME: MOBIL

HTA002

PAGE 2

SDS NUMBER: HDHE-K-00327

REVISION:

12 AUGUST 2000

MEASURES".

o Dust. Material in form of dust is subject to explosions.

o Static Discharge. Product can accumulate static charges which can cause an incendiary electrical discharge.

4 FIRST AID MEASURES

INHALATION:

o In case of adverse exposure to vapours and/or aerosols formed at elevated temperatures, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

SKIN CONTACT:

- o First aid is normally not required.
- o In case of frequent or prolonged contact, flush with large amounts of water; use soap if available.
- o For hot product; immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention. No attempt should be made to remove material from skin or to remove contaminated clothing, as the damaged flesh can be easily torn.

EYE CONTACT:

o This product is an inert solid. If in eye, remove as one would any foreign object.

INGESTION:

o First aid is normally not required.

5 FIRE-FIGHTING MEASURES

FIRE-FIGHTING PROCEDURES:

- o Use water spray to cool fire exposed surfaces and to protect personnel. Block the supply to the fire.
- o Extinguish the fire by cooling with water spray.

SPECIAL FIRE PRECAUTIONS:

- o Respiratory and eye protection required for fire fighting personnel.
- o See Sections 4 "First Aid Measures" and 10 "Stability and Reactivity"

PRODUCT NAME: MOBIL

HTA002

PAGE 3

SDS NUMBER: HDHE-K-00327

REVISION: 12 A

12 AUGUST 2000

HAZARDOUS COMBUSTION PRODUCTS:

Under Oxygen lean conditions, Carbon Monoxide (CO) and irritating smoke may be produced.

6 ACCIDENTAL RELEASE MEASURES

LAND SPILL:

- o Spilled pellets present a slippage hazard on hard surfaces.
- o Sweep up spilled material and place in suitable containers for recycle or disposal.
- o Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- o See Sections 4 "First Aid Measures" and 10 "Stability and Reactivity"

WATER SPILL:

- o Stop source if possible to do so without hazard. Advise authorities of possible floating substances, if material enters watercourses or sewers. Confine if possible.
- o Consult an expert on disposal of any recovered material and ensure conformity to local disposal regulations.
- o See Sections 4 "First Aid Measures" and 10 "Stability and Reactivity".

7 HANDLING AND STORAGE

STORAGE TEMPERATURE (Deg C) : Ambient TRANSPORT TEMPERATURE (Deg C) : Ambient

LOADING/UNLOADING TEMPERATURE (Deg C) : Ambient

VISCOSITY (cSt) : Solid

STORAGE/TRANSPORT PRESSURE (kPa) : Atmospheric

ELECTROSTATIC ACCUMULATION HAZARD? Yes, use proper grounding procedure

USUAL SHIPPING CONTAINERS:

Bulk trucks, bags, octatainers

ExxonMobil Chemical

SAFETY DATA SHEET

PRODUCT NAME: MOBIL HTA002

PAGE 4

SDS NUMBER: HDHE-K-00327

REVISION:

12 AUGUST 2000

MATERIALS AND COATINGS SUITABLE: Pellets normally stored in silos of aluminum or plastic bags. Many

materials are suitable.

MATERIALS AND COATINGS UNSUITABLE: Not Applicable

STORAGE / HANDLING, GENERAL NOTES

- o Keep container closed. Handle and open containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated place away from incompatible materials.
- o Do NOT handle or store near an open flame, sources of heat, or sources of ignition. Protect material from direct sunlight.
- o Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROL MEASURES / VENTILATION

Local exhaust ventilation of process equipment may be needed to control aerosol exposures to below the recommended threshold exposure limit. See personal protection recommendations.

The ACGIH recommends a TWA of 10 mg/m3 for Inhalable particlate (total dust) and a TWA of 3 mg/m3 for Respirable particulate (total dust) for particulates not otherwise classified (PNOC)

PERSONAL PROTECTION:

- o Where contact may occur, wear safety glasses with side shields.
- o Where contact may occur with hot materials, wear thermal resistant gloves, arm protection and a face shield.
- o While processing this material, adequate ventilation is required. The use of local exhaust ventilation is recommended to control process emissions near the source.
- o Where concentrations in air may exceed the limits given in this section, and engineering, work practice or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

PRODUCT NAME: MOBIL HTA002

PAGE 5

SDS NUMBER: HDHE-K-00327

REVISION:

12 AUGUST 2000

9 PHYSICAL AND CHEMICAL PROPERTIES

These are indicative values only and should not be regarded as product specification.

PHYSICAL STATE: Solid

FORM/COLOUR: CLEAR TO OPAQUE, WHITE TO OFF-WHITE PELLETS

ODOUR:

ODOURLESS

pH () (Deg C):

Not Applicable

MELTING TEMPERATURE RANGE:

between 110 and 130 DEG C

CRYSTALLIZATION TEMP RANGE:

DEG C

Not Applicable

AUTOIGNITION TEMPERATURE: EXPLOSIVE LIMITS (in air):

DEG C g/m3

Not Available Not Available

VAPOUR PRESSURE (Deg C):

kPa

BULK DENSITY:

between 0.500 and 1.000 g/cm3

SPECIFIC GRAVITY: between 0.94 and 0.5 VAPOUR DENSITY (101.3 kPa/air=1):

- 0.97 (PRODUCT)

SOLUBILITY IN WATER (Deg C):

Wቲቄ

Not Applicable

IS MATERIAL HYGROSCOPIC:

No

Insoluble

VISCOSITY

cSt

Not Applicable

EVAPORATION RATE (n-Bu Acetate= 1):

Not Applicable

COEFF. OF THERMAL EXPANSION (Liq.): MOLECULAR WEIGHT: between 5,000 and 250,000

DEG C

Not Applicable

10 STABILITY AND REACTIVITY

HAZARDOUS POLYMERISATION?

CONDITIONS TO AVOID POLYMERISATION:

Not Applicable

STABILITY:

Stable

CONDITIONS TO AVOID INSTABILITY:

Temperatures above 300 deg. C may

cause resin degradation

ExxonMobil Chemical

SAFETY DATA SHEET

PRODUCT NAME: MOBIL

HTA002

PACE

SDS NUMBER: HDHE-K-00327

REVISION:

12 AUGUST 2000

MATERIALS AND CONDITIONS TO AVOID (INCOMPATIBILITY):

Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Dioxide (CO2), Carbon Monoxide (CO), Flammable Hydrocarbons and Fumes

11 TOXICOLOGICAL INFORMATION

ACUTE:

INHALATION:

- o Negligible hazard at ambient temperature (-18 to 38 Deg C).
- o Vapours or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
- o Dust may be irritating to eyes and respiratory tract.

SKIN CONTACT:

- o Negligible hazard at ambient temperatures (-18 to +38 degrees C) .
- o Exposure to hot material will cause thermal burns.

EYE CONTACT:

- o Particulates may scratch eye surfaces/cause mechanical irritation. INGESTION:
 - o Minimal toxicity.

Additional information is available on special request

12 ECOLOGICAL INFORMATION

13 DISPOSAL CONSIDERATIONS

The following advice only applies to the product as supplied. Combination with other materials may well indicate another route of

PRINT DATE: 7 SEPTEMBER 2000

Cont.

PRODUCT NAME: MOBIL

HTA002

PAGE 7

SDS NUMBER: HDHE-K-00327

REVISION:

12 AUGUST 2000

disposal. If in doubt, contact local ExxonMobil Chemical Company supplier or local Authorities.

Empty drums should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor.

Care should in any case be taken to ensure compliance with EC, national and local regulations.

Suitable routes of disposal of this product are incineration in appropriate incinerators with energy recovery, disposal in landfills or appropriate recycling methods.

14 TRANSPORT INFORMATION

LAND (railway/road, such as RID/ADR)

This product is not regulated for road/rail transport.

INLAND WATERWAYS (such as ADN/R)

This product is not regulated for inland waterways transport.

SEA (IMDG)

This product is not regulated for sea transport.

AIR (ICAO/IATA)

This product is not regulated for air transport.

15 REGULATORY INFORMATION

CLASSIFICATION AND LABELLING ACCORDING TO EEC DIRECTIVES

CLASSIFICATION/SYMBOL: Not Regulated

GOVERNING DIRECTIVE:

Dangerous Substances Directive 67/548/EC, as modified.

PRODUCT NAME: MOBIL

HTA002

PAGE 8

SDS NUMBER: HDHE-K-00327 REVISION: 12 AUGUST 2000

16 OTHER INFORMATION

Note 1 o Always ensure adequate ventilation of the workshop.

- o Local exhaust ventilation of process equipment may be needed.
- o Avoid breathing vapors or fumes.
- Note 2 o All handling equipment should be electrically grounded.
- Note 3 o Incorrect operation of processing equipment can cause thermal degradation of the polymer and potential danger through inclusion of bubbles of air or other gases in material subsequently subjected to high temperatures. To avoid this the following typical melt temperatures are recommended:

Blown film extrusion : 170-260 C Wire & Cable Coating : 205-270 C Flat film extrusion : 180-300 C Extrusion Coating : 280-340 C Sheeting Extrusion : 150-260 C Injection Moulding : 180-280 C Profile Extrusion : 150-220 C Blow Moulding : 150-250 C Compounding : 125-240 C Rotational Moulding : 210-340 C

o To prevent degradation during :

Start-up :- Put heater of the major machine parts on first (normally the die heater), followed by the other heating elements to prevent plugging of unmolten material. -Restrict the time the product is kept at elevated

temperature without processing.

Shutdown :-Leave the barrel full and make sure that the hopper is empty.

-Cool down the equipment rapidly after shutdown.

- Note 4 o Product may contain varying levels of additives such as slip, antiblocking agents, antioxidants and stabilizers.
- Note 5 o Spilled pellets present a slippage hazard on hard surfaces. Practice good housekeeping.
 - o Incorrect operation conditions can cause degradation of the product. Observe the maximum recommended processing temperatures for each specifi
 - product type. If necessary contact the Exxon Chemical Technical Service Engineer for details.
 - o The product contains varying levels of additives such as slip and

PRODUCT NAME: MOBIL

HTA002

PAGE 9

SDS NUMBER: HDHE-K-00327

REVISION:

12 AUGUST 2000

antiblocking agents, antioxidants and stabilizers.

o This product may also contain some dust. Small particle size dust can form a potentially explosive cloud, if finely divided and dispersed in air at an appropriate concentration. Therefore:

- Avoid accumulation of dust
- Keep from sources of ignition
- Practice good housekeeping
- Operate handling and storage equipment leak-free

REVISION SUMMARY:

Since 1 FEBRUARY 2000, this SDS has been revised in Section(s): 1, 6, 9, 10, 14

LAST LANGUAGE REVISION DATE: 12 AUGUST 2000

THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF ExxonMobil Chemical Company's KNOWLEDGE AND BELIEF ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

PRINT DATE: 7 SEPTEMBER 2000