



CANADA COLORS AND CHEMICALS LIMITED
80 SCARSDALE ROAD
DON MILLS, ONTARIO M3B 2R7
(416)-449-7750

PRODUCT : DOW LDPE 993I

CODE: P394288

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER.....DOW CHEMICAL CANADA INC.
MODELAND ROAD,
P.O. BOX 1012
SARNIA, ONTARIO ; N7T 7K7
PREPARED BY.....ENVIRONMENTAL & REGULATORY AFFAIRS DEPARTMENT
PREPARATION DATE.....JUN 30/1997
PRODUCT NAME.....DOW LDPE 993I
PRODUCT CODE.....P394288
MATERIAL USE.....REFER TO TECHNICAL LITERATURE
EMERGENCY PHONE NO.....(416)-444-2112

SECTION 02: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	EXPOSURE LEVELS	LD/50, ROUTE, SPECIES	LC/50, ROUTE, SPECIES
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NONE

SECTION 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
SKIN CONTACT.....ESSENTIALLY NON-IRRITATING TO SKIN. POSSIBLE MECHANICAL IRRITATION. MOLTEN MATERIAL CAUSES BURNS.
SKIN ABSORPTION.....SKIN ABSORPTION IS UNLIKELY DUE TO PHYSICAL PROPERTIES.
EYE CONTACT.....SOLID OR DUST MAY CAUSE IRRITATION OR CORNEAL INJURY DUE TO MECHANICAL ACTION.
INHALATION.....DUST MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT. AT ROOM TEMPERATURE, EXPOSURES TO VAPOURS ARE UNLIKELY DUE TO PHYSICAL PROPERTIES; HIGH TEMPERATURES MAY GENERATE VAPOUR LEVELS SUFFICIENT TO CAUSE IRRITATION AND OTHER EFFECTS.
INGESTION.....SINGLE DOSE ORAL TOXICITY IS LOW. NO HAZARDS ANTICIPATED FROM INGESTION INCIDENTAL TO INDUSTRIAL EXPOSURE.
OTHER HEALTH EFFECTS:.....ADDITIVES ARE ENCAPSULATED IN THE PRODUCT AND ARE NOT EXPECTED TO BE RELEASED UNDER NORMAL PROCESSING CONDITIONS.
EFFECTS OF ACUTE EXPOSURE.....SEE ABOVE
EFFECTS OF CHRONIC EXPOSURE.....NO RELEVANT INFORMATION FOUND.

SECTION 04: FIRST AID MEASURES

INSTRUCTIONS:.....INHALATION: NO ADVERSE EFFECTS ANTICIPATED BY THIS ROUTE OF EXPOSURE. SKIN: WASH OFF IN FLOWING WATER OR SHOWER.
INGESTION: NO ADVERSE EFFECTS ANTICIPATED BY THIS ROUTE OF EXPOSURE INCIDENTAL TO PROPER INDUSTRIAL HANDLING. FLUSH EYES WITH LARGE AMOUNTS OF RUNNING WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS APART TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYE AND LIDS WITH WATER.

SECTION 05: FIRE FIGHTING MEASURES

T.D.G. FLAM. CLASS.....NOT REGULATED
FLAMMABILITY.....SEE FLASH POINT
IF YES, UNDER WHICH CONDITIONS?
EXTINGUISHING MEDIA.....WATER FOG, CO2, DRY CHEMICAL.

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SECTION 05: FIRE FIGHTING MEASURES

SPECIAL PROCEDURES.....KEEP PEOPLE AWAY. ISOLATE FIRE AREA. COOL SURROUNDINGS WITH WATER TO LOCALIZE FIRE ZONE. HAND HELD CARBON DIOXIDE OR DRY CHEMICAL EXTINGUISHERS MAY BE USED FOR SMALL FIRES. SOAK THOROUGHLY WITH WATER TO COOL AND PREVENT RE-IGNITION. WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS. WEAR PROTECTIVE FIRE FIGHTING CLOTHING (INCLUDES FIRE FIGHTING HELMET, COAT, PANTS, BOOTS, AND GLOVES.). TOXIC GASES LIBERATED UNDER FIRE CONDITIONS.

FLASH POINT (C), METHOD.....NONE
 AUTO IGNITION TEMPERATURE.....N.AV.
 UPPER FLAMMABLE LIMIT (% BY.....N.AP.
 VOL.)
 LOWER FLAMMABLE LIMIT (% BY.....N.AP.
 VOL.)
 EXPLOSION DATA
 EXPLOSIVE POWER.....N.AV.
 RATE OF BURNING.....N.AV.
 SENSITIVITY TO STATIC.....N.AV.
 DISCHARGE
 SENSITIVITY TO IMPACT.....N.AV.
 UNUSUAL FIRE AND EXPLOSION.....DENSE BLACK SMOKE EMITTED WHEN BURNED WITHOUT SUFFICIENT OXYGEN. MECHANICAL HANDLING CAN CAUSE FORMATION OF DUSTS. DO NOT ALLOW DUST TO ACCUMULATE. UNDER FIRE CONDITIONS POLYMERS DECOMPOSE. THE SMOKE MAY CONTAIN POLYMER FRAGMENTS OF VARYING COMPOSITION IN ADDITION TO UNIDENTIFIED TOXIC AND/OR IRRITATING COMPOUNDS.
 HAZARDS
 HAZARDOUS COMBUSTION PRODUCTS...UNDER FIRE CONDITIONS POLYMERS DECOMPOSE. THE SMOKE MAY CONTAIN POLYMER FRAGMENTS OF VARYING COMPOSITIONS IN ADDITION TO UNIDENTIFIED TOXIC AND/OR IRRITATING COMPOUNDS. HAZARDOUS COMBUSTION BY-PRODUCTS MAY INCLUDE AND ARE NOT LIMITED TO CARBON MONOXIDE, CARBON DIOXIDE.

SECTION 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL.....ONLY TRAINED AND PROPERLY PROTECTED PERSONNEL SHOULD BE INVOLVED IN SPILL CLEANUP OPERATIONS. MAY PRESENT A SLIPPING HAZARD. COLLECT AND CONTAIN IN SUITABLE DISPOSAL CONTAINERS.

SECTION 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND.....AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID EQUIPMENT BREATHING DUST OR MIST. KEEP CONTAINER CLOSED WHEN NOT IN USE. MECHANICAL HANDLING EQUIPMENT CAN CAUSE FORMATION OF DUSTS. DUST LAYERS SHOULD NOT BE PERMITTED TO ACCUMULATE IN ORDER TO AVOID ANY POTENTIAL FOR DUST EXPLOSION HAZARDS. MAINTAIN A GOOD PERSONAL HYGIENE.
 STORAGE NEEDS.....STORE AWAY FROM ACIDS. STORE IN A COOL DRY PLACE. DO NOT STORE IN UNDERGROUND TANKS. KEEP CONTAINER CLOSED WHEN NOT IN USE.

SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE.....RECOMMENDED.
 RESPIRATORY/TYPE.....IN DUSTY ATMOSPHERE, USE AN APPROVED DUST RESPIRATOR. USE NIOSH/MSHA APPROVED EQUIPMENT WHEN AIRBORNE EXPOSURE IS EXCESSIVE.
 EYE/TYPE.....SAFETY GLASSES. IF THERE IS A POTENTIAL FOR EXPOSURE TO PARTICLES WHICH COULD CAUSE MECHANICAL INJURY TO THE EYE, WEAR CHEMICAL GOGGLES.

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SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

FOOTWEAR/TYPE.....RUBBER SAFETY BOOTS
CLOTHING/TYPE.....WEAR IMPERVIOUS PROTECTIVE CLOTHING.
OTHER/TYPE.....EYE BATH AND SAFETY SHOWER.
ENGINEERING CONTROLS.....CONTROL AIRBORNE CONCENTRATIONS BELOW THE EXPOSURE
GUIDELINE. GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT
FOR MOST CONDITIONS. IF HANDLING AT ELEVATED TEMPERATURES
WITHOUT SUFFICIENT VENTILATION, USE AN APPROVED
AIR-PURIFYING RESPIRATOR. IN DUSTY ATMOSPHERES, USE AN
APPROVED DUST RESPIRATOR.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE.....SOLID
ODOUR.....NO ODOUR
ODOUR THRESHOLD.....N.AV.
VAPOUR PRESSURE (MMHG).....N.AP.
VAPOUR DENSITY (AIR=1).....N.AP.
EVAPORATION RATE.....N.AP.
BOILING POINT.....N.AP.
SPECIFIC GRAVITY (WATER=1).....0.91 - 0.97
SOLUBILITY IN WATER (% W/W).....INSOLUBLE
COEFFICIENT OF WATER/OIL DIST.....N.AV.

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:
YES
NO, WHICH CONDITIONS?.....TEMPERATURES OVER 300 (C) WILL RELEASE NOXIOUS AND
COMBUSTIBLE GASES.

COMPATABILITY WITH OTHER
SUBSTANCES:
YES
NO, WHICH ONES?.....OXIDIZING AGENTS

HAZARDOUS PRODUCTS OF.....PROCESSING MAY RELEASE FUMES WHICH INCLUDE POLYMER
DECOMPOSITION FRAGMENTS AND OTHER DECOMPOSITION PRODUCTS. DECOMPOSITION
PRODUCTS DEPEND ON TEMPERATURE, OTHER MATERIALS PRESENT AND
AIR SUPPLY. FUMES CAN BE IRRITATING. AT TEMPERATURES
EXCEEDING MELT TEMPERATURES, POLYMER FRAGMENTS CAN OCCUR.
DURING THERMAL PROCESSING THIS MATERIAL CAN DEGRADE TO
PRODUCE TRACE HYDROCARBONS, ALDEHYDES, ORGANIC ACIDS, AND
ALCOHOLS IN LIMITED QUANTITIES. TOXIC GASES ARE RELEASED.
COMPLETE COMBUSTION RESULTS IN CARBON DIOXIDE AND WATER.

HAZARDOUS POLYMERIZATION.....WILL NOT OCCUR

SECTION 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL.....SEE SECTION 02. ALTHOUGH SOME OF THE ADDITIVES USED IN THIS
PRODUCT MAY HAVE EXPOSURE GUIDELINES, THESE ADDITIVES ARE
ENCAPSULATED IN THE PRODUCT AND NO EXPOSURE WOULD BE
EXPECTED UNDER NORMAL HANDLING CONDITIONS.

LC 50 OF MATERIAL, SPECIES &.....SEE SECTION 02
ROUTE

LD 50 OF MATERIAL, SPECIES &.....SINGLE DOSE HAS NOT BEEN DETERMINED. SINGLE DOSE ORAL
ROUTE TOXICITY IS BELIEVED TO BE VERY LOW.

CARCINOGENICITY OF MATERIAL.....NONE
REPRODUCTIVE EFFECTS.....N.AV.
IRRITANCY OF MATERIAL.....SEE SECTION 03
SENSITIZING CAPABILITY OF.....N.AV.
MATERIAL
SYNERGISTIC MATERIALS.....N.AV.

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SECTION 12: ECOLOGICAL CONSIDERATIONS

ENVIRONMENTAL TOXICITY.....THIS WATER INSOLUBLE POLYMERIC SOLID IS EXPECTED TO BE
INFORMATION INERT IN ENVIRONMENT. SURFACE PHOTODEGRADATION IS EXPECTED
WITH EXPOSURE TO SUNLIGHT. NO APPRECIABLE BIODEGRADATION IS
EXPECTED. NOT EXPECTED TO BE ACUTELY TOXIC, BUT PELLETS, IF
INGESTED BY WATERFOWL OR AQUATIC LIFE, MAY MECHANICALLY
CAUSE ADVERSE EFFECTS.

ENVIRONMENTAL FATE:.....NO BIOCONCENTRATION IS EXPECTED BECAUSE OF THE RELATIVELY
HIGH MOLECULAR WEIGHT (MW GREATER THAN 1000). IN THE
TERRESTRIAL ENVIRONMENT, MATERIAL IS EXPECTED TO REMAIN IN
THE SOIL. IN THE AQUATIC ENVIRONMENT, MATERIAL IS EXPECTED
TO FLOAT.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL.....DU NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY
OF WATER. DISPOSE OF IN ACCORDANCE TO ALL GOVERNMENT
REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

UN NUMBER.....N.AP.
T.D.G. CLASSIFICATION.....NOT REGULATED
PACKING GROUP.....N.AP.
SPECIAL SHIPPING INSTRUCTIONS....N.AP.

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION.....THIS IS NOT A CONTROLLED PRODUCT
CPR COMPLIANCE.....THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE
HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE
INFORMATION REQUIRED BY THE CPR.

SECTION 16: OTHER INFORMATION

N.AV.=NOT AVAILABLE
N.AP.=NOT APPLICABLE