

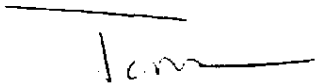


*John
Reader*

Interoffice Communication

To Chuck Glover
From Tom Grumbles
Date May 24, 1982
Subject PRINTING OF MATERIAL SAFETY DATA SHEETS

Please print 100 copies each of the the Material Safety Data Sheets enclosed.
(Conoco DR 811, Conoco DR 721, Conoco DR 821, Conoco CR 822).


Thomas G. Grumbles

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Enclosure

CCR 000002020



Conoco Chemicals Company
P.O. Box 19029
Houston, TX 77224

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME	Conoco Chemicals	REGULAR TELEPHONE NO.	713/863-7804
		EMERGENCY TELEPHONE NO.	318/491-5142
ADDRESS	P. O. Box 2100, Bay City, TX 77414		
TRADE NAME	Conoco DR 822		
SYNONYMS	High Density Polyethylene		

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA

III. PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O = 1)	0.957g/cm ³
VAPOR PRESURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (_____ = 1)	N/A
SOLUBILITY IN WATER	N/A	MELTING POINT	133° C
APPEARANCE AND ODOR	Translucent Odorless Pellets		

IV. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	N/A	AUTOIGNITION TEMPERATURE	N/A	
FLAMMABLE LIMITS IN AIR, % BY VOL.	LOWER	N/A	UPPER	N/A
EXTINGUISHING MEDIA	Water spray on dry chemical (Ammonium Phosphate Base)			
SPECIAL FIRE FIGHTING PROCEDURES	Cool exposed resins with water spray to prevent melting and dripping. Incomplete combustion can lead to formation of carbon monoxide, irritating fumes and smoke. Self-contained breathing apparatus should be worn if entering confined space.			
UNUSUAL FIRE				

V

HEALTH HAZARD INFORMATION**FIRST AID**

EYES: If dust enters the eye, flush with large amounts of water.

SKIN: N/A

INHALATION: N/A

INGESTION: Seek Medical Aid

NATURE OF HAZARD

EYES: This material is not expected to present a hazard to the eyes.

SKIN: This material is not expected to present a hazard to the intact skin.
Molten resins will produce thermal burns.

INHALATION: This material is not expected to present an inhalation hazard under normal use.

INGESTION: This material is not expected to present an ingestion hazard.

EFFECTS OF OVEREXPOSURE:**ACUTE OVEREXPOSURE:****CHRONIC OVEREXPOSURE:**

No adverse health effects are expected to occur with exposure to this material. Irritation to the upper respiratory tract may occur with exposure to fumes or smokes produced when heating or burning polyethylene.

THRESHOLD LIMIT VALUE (TLV)

ACGIH: 10 mg/m³ nuisance dust

TOXICITY DATA

SKIN CONTACT: N/A

EYE CONTACT: N/A

INHALATION: N/A

INGESTION: N/A

CCR 000002022

VI**REACTIVITY DATA****CONDITIONS CONTRIBUTING TO INSTABILITY****INCOMPATIBILITY**

Can be affected by oxidizing acids and some chlorinated hydrocarbon solvents.

HAZARDOUS DECOMPOSITION PRODUCTS

Burning or heating to high temperatures may release irritating low molecular weight composition products.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Will not occur.

VII**SPILL OR LEAK PROCEDURES****STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

Sweep up pellets and place in suitable containers for recycle or disposal. Pellets on walking surfaces may be a slipping hazard.

NEUTRALIZING CHEMICALS N/A

WASTE DISPOSAL METHOD

May be disposed of in landfill in accordance with local, state or federal regulations.

VIII**SPECIAL PROTECTION INFORMATION****VENTILATION REQUIREMENTS**

General ventilation for thermal processing and nuisance dust control.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY (SPECIFY IN DETAIL): If dust is produced during handling of material an approved air-purifying respirator should be used.

EYE: Standard safety glasses or chemical goggles.

GLOVES: Generally not required unless handling hot or molten resins.

OTHER CLOTHING AND EQUIPMENT: N/A

CCR 000002023

IX

SPECIAL PRECAUTIONS

HAZARD CLASSIFICATION INFORMATION

IMCO HAZARD CLASS AND NUMBER N/A	US DOT CLASSIFICATION N/A
UN NUMBER N/A	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 9002-88-4	

TRANSPORTATION AND STORAGE

USUAL SHIPPING CONTAINERS Boxes Dry flow cars Bags Dry flow trucks	ELECTROSTATIC ACCUMULATION HAZARD
	STORAGE/TRANSPORT PRESSURE
STORAGE TRANSPORT TEMPERATURE	LOADING/UNLOADING TEMPERATURE
	VISCOSITY AT LOADING/UNLOADING TEMPERATURE

HANDLING AND STORAGE MATERIALS AND COATINGS

SUITABLE	UNSUITABLE

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BOLD Letters

(including warranty of merchantability)

CCR 000002024



Conoco Chemicals Company
P.O. Box 19029
Houston, TX 77224

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

MANUFACTURER'S NAME	Conoco Chemicals	REGULAR TELEPHONE NO.	713/863-7804
		EMERGENCY TELEPHONE NO.	318/491-5142
ADDRESS	P. O. Box 2100, Bay City, TX 77414		
TRADE NAME	Conoco DR 821		
SYNONYMS	High Density Polyethylene		

HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA

PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O = 1)	0.953g/cm ³
VAPOR PRESURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR = 1)		EVAPORATION RATE (_____ = 1)	N/A
SOLUBILITY IN WATER	N/A	MELTING POINT	132° C
APPEARANCE AND ODOR	Translucent Odorless Pellets		

FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	N/A		AUTOIGNITION TEMPERATURE	N/A	
FLAMMABLE LIMITS IN AIR. % BY VOL.		LOWER	N/A	UPPER	N/A
EXTINGUISHING MEDIA	Water spray on dry chemical (Ammonium Phosphate Base)				
SPECIAL FIRE FIGHTING PROCEDURES	Cool exposed resins with water spray to prevent melting and dripping. Incomplete combustion can lead to formation of carbon monoxide, irritating fumes and smoke. Self-contained breathing apparatus should be worn if entering confined space.				
UNUSUAL FIRE					

HEALTH HAZARD INFORMATION

FIRST AID

EYES: If dust enters the eye, flush with large amounts of water.

SKIN: N/A

INHALATION: N/A

INGESTION: Seek Medical Aid

NATURE OF HAZARD

EYES: This material is not expected to present a hazard to the eyes.

SKIN: This material is not expected to present a hazard to the intact skin.
Molten resins will produce thermal burns.

INHALATION: This material is not expected to present an inhalation hazard under normal use.

INGESTION: This material is not expected to present an ingestion hazard.

EFFECTS OF OVEREXPOSURE: No adverse health effects are expected to occur with exposure to this material. Irritation to the upper respiratory tract may occur with exposure to fumes or smokes produced when heating or burning polyethylene.

ACUTE OVEREXPOSURE:

CHRONIC OVEREXPOSURE:

THRESHOLD LIMIT VALUE (TLV)

ACGIH: 10 mg/m³ nuisance dust

TOXICITY DATA

SKIN CONTACT: N/A

EYE CONTACT: N/A

INHALATION: N/A

INGESTION: N/A

CCR 000002026

VI**REACTIVITY DATA****CONDITIONS CONTRIBUTING TO INSTABILITY****INCOMPATIBILITY**

Can be affected by oxidizing acids and some chlorinated hydrocarbon solvents.

HAZARDOUS DECOMPOSITION PRODUCTS

Burning or heating to high temperatures may release irritating low molecular weight composition products.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Will not occur.

VII**SPILL OR LEAK PROCEDURES****STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

Sweep up pellets and place in suitable containers for recycle or disposal. Pellets on walking surfaces may be a slipping hazard.

NEUTRALIZING CHEMICALS N/A

WASTE DISPOSAL METHOD

May be disposed of in landfill in accordance with local, state or federal regulations.

VIII**SPECIAL PROTECTION INFORMATION****VENTILATION REQUIREMENTS**

General ventilation for thermal processing and nuisance dust control.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY (SPECIFY IN DETAIL): If dust is produced during handling of material an approved air-purifying respirator should be used.

EYE: Standard safety glasses or chemical goggles.

GLOVES: Generally not required unless handling hot or molten resins.

OTHER CLOTHING AND EQUIPMENT: N/A

IX	SPECIAL PRECAUTIONS
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HAZARD CLASSIFICATION INFORMATION
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IMCO HAZARD CLASS AND NUMBER N/A	US DOT CLASSIFICATION N/A
UN NUMBER N/A	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 9002-88-4	

TRANSPORTATION AND STORAGE

USUAL SHIPPING CONTAINERS Bags Dry flow cars Boxes Dry flow trucks	ELECTROSTATIC ACCUMULATION HAZARD STORAGE/TRANSPORT PRESSURE LOADING/UNLOADING TEMPERATURE VISCOSITY AT LOADING/UNLOADING TEMPERATURE
STORAGE TRANSPORT TEMPERATURE	

HANDLING AND STORAGE MATERIALS AND COATINGS
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SUITABLE	UNSUITABLE

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Conoco Chemicals Company
P.O. Box 19029
Houston, TX 77224

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME	Conoco Chemicals	REGULAR TELEPHONE NO.	713/863-7804
		EMERGENCY TELEPHONE NO.	318/491-5142
ADDRESS	P. O. Box 2100, Bay City, TX 77414		
TRADE NAME	Conoco DR 721		
SYNONYMS	High Density Polyethylene		

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA

III. PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O = 1)	0.964g/cm ³
VAPOR PRESURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (_____ = 1)	N/A
SOLUBILITY IN WATER	N/A	MELTING POINT	136° C
APPEARANCE AND ODOR	Translucent Odorless Pellets		

IV. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	N/A		AUTOIGNITION TEMPERATURE	N/A	
FLAMMABLE LIMITS IN AIR. % BY VOL.		LOWER	N/A	UPPER	N/A
EXTINGUISHING MEDIA	Water spray on dry chemical (Ammonium Phosphate Base)				
SPECIAL FIRE FIGHTING PROCEDURES	Cool exposed resins with water spray to prevent melting and dripping. Incomplete combustion can lead to formation of carbon monoxide, irritating fumes and smoke. Self-contained breathing apparatus should be worn in entering confined space.				
UNUSUAL FIRE AND EXPLOSION					

CCR 000002029

CCR 000002029

V

HEALTH HAZARD INFORMATION

FIRST AID

EYES: If dust enters the eye, flush with large amounts of water.

SKIN: N/A

INHALATION: N/A

INGESTION: Seek Medical Aid

NATURE OF HAZARD

EYES: This material is not expected to present a hazard to the eyes.

SKIN: This material is not expected to present a hazard to the intact skin.
Molten resins will produce thermal burns.

INHALATION: This material is not expected to present an inhalation hazard under normal use.

INGESTION: This material is not expected to present an ingestion hazard.

EFFECTS OF OVEREXPOSURE: No adverse health effects are expected to occur with exposure to this material. Irritation to the upper respiratory tract may occur with exposure to fumes or smokes produced when heating or burning polyethylene.

ACUTE OVEREXPOSURE:

CHRONIC OVEREXPOSURE:

THRESHOLD LIMIT VALUE (TLV)

ACGIH: 10 mg/m³ nuisance dust

TOXICITY DATA

SKIN CONTACT: N/A

EYE CONTACT: N/A

INHALATION: N/A

INGESTION: N/A

CCR 000002030

VI**REACTIVITY DATA****CONDITIONS CONTRIBUTING TO INSTABILITY****INCOMPATIBILITY**

Can be affected by oxidizing acids and some chlorinated hydrocarbon solvents.

HAZARDOUS DECOMPOSITION PRODUCTS

Burning or heating to high temperatures may release irritating low molecular weight composition products.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Will not occur.

VII**SPILL OR LEAK PROCEDURES****STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

Sweep up pellets and place in suitable containers for recycle or disposal. Pellets on walking surfaces may be a slipping hazard.

NEUTRALIZING CHEMICALS N/A

WASTE DISPOSAL METHOD

May be disposed of in landfill in accordance with local, state or federal regulations.

VIII**SPECIAL PROTECTION INFORMATION****VENTILATION REQUIREMENTS**

General ventilation for thermal processing and nuisance dust control.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY (SPECIFY IN DETAIL): If dust is produced during handling of material an approved air-purifying respirator should be used.

EYE: Standard safety glasses or chemical goggles.

GLOVES: Generally not required unless handling hot or molten resins.

OTHER CLOTHING AND EQUIPMENT: N/A

IX

SPECIAL PRECAUTIONS

HAZARD CLASSIFICATION INFORMATION

IMCO HAZARD CLASS AND NUMBER N/A	US DOT CLASSIFICATION N/A
UN NUMBER N/A	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 9002-88-4	

TRANSPORTATION AND STORAGE

USUAL SHIPPING CONTAINERS Bags, Boxes, Dry flow cars, Dry flow trucks	ELECTROSTATIC ACCUMULATION HAZARD
	STORAGE/TRANSPORT PRESSURE
STORAGE TRANSPORT TEMPERATURE	LOADING/UNLOADING TEMPERATURE
	VISCOSITY AT LOADING/UNLOADING TEMPERATURE

HANDLING AND STORAGE MATERIALS AND COATINGS

SUITABLE	UNSUITABLE

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CCR 000002032



Conoco Chemicals Company
P.O. Box 19029
Houston, TX 77224

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME	Conoco Chemicals	REGULAR TELEPHONE NO.	713/863-7804
		EMERGENCY TELEPHONE NO.	318/491-5142
P. O. Box 2100, Bay City, TX 77414			
TRADE NAME	Conoco DR 811		
SYNONYMS	High Density Polyethylene		

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA

III. PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O = 1)	0.954g/cm ³
VAPOR PRESURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (_____ = 1)	N/A
SOLUBILITY IN WATER	N/A	MELTING POINT	132° C
APPEARANCE AND ODOR	Translucent Odorless Pellets		

IV. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	N/A		AUTOIGNITION TEMPERATURE	N/A	
FLAMMABLE LIMITS IN AIR, % BY VOL.		LOWER	N/A	UPPER	N/A
EXTINGUISHING MEDIA	Water spray on dry chemical (Ammonium Phosphate Base)				
SPECIAL FIRE FIGHTING PROCEDURES	Cool exposed resins with water spray to prevent melting and dripping. Incomplete combustion can lead to formation of carbon monoxide, irritating fumes and smoke. Self-contained breathing apparatus should be worn if entering confined space.				
UNUSUAL FIRE AND EXPLOSION					

000002033

V.**HEALTH HAZARD INFORMATION****FIRST AID**

EYES: If dust enters the eye, flush with large amounts of water.

SKIN: N/A

INHALATION: N/A

INGESTION: Seek Medical Aid

NATURE OF HAZARD

EYES: This material is not expected to present a hazard to the eyes.

SKIN: This material is not expected to present a hazard to the intact skin.
Molten resins will produce thermal burns.

INHALATION: This material is not expected to present an inhalation hazard under normal use.

INGESTION: This material is not expected to present an ingestion hazard.

EFFECTS OF OVEREXPOSURE:**ACUTE OVEREXPOSURE:****CHRONIC OVEREXPOSURE:**

No adverse health effects are expected to occur with exposure to this material. Irritation to the upper respiratory tract may occur with exposure to fumes or smokes produced when heating or burning polyethylene.

THRESHOLD LIMIT VALUE (TLV)

ACGIH: 10 mg/m³ nuisance dust

TOXICITY DATA

SKIN CONTACT: N/A

EYE CONTACT: N/A

INHALATION: N/A

INGESTION: N/A

CCR 000002034

VI**REACTIVITY DATA****CONDITIONS CONTRIBUTING TO INSTABILITY****INCOMPATIBILITY**

Can be affected by oxidizing acids and some chlorinated hydrocarbon solvents.

HAZARDOUS DECOMPOSITION PRODUCTS

Burning or heating to high temperatures may release irritating low molecular weight composition products.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Will not occur.

VII**SPILL OR LEAK PROCEDURES****STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

Sweep up pellets and place in suitable containers for recycle or disposal. Pellets on walking surfaces may be a slipping hazard.

NEUTRALIZING CHEMICALS

N/A

WASTE DISPOSAL METHOD

May be disposed of in landfill in accordance with local, state or federal regulations.

VIII**SPECIAL PROTECTION INFORMATION****VENTILATION REQUIREMENTS**

General ventilation for thermal processing and nuisance dust control.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY (SPECIFY IN DETAIL): If dust is produced during handling of material an approved air-purifying respirator should be used.

EYE: Standard safety glasses or chemical goggles.

GLOVES: Generally not required unless handling hot or molten resins.

OTHER CLOTHING AND EQUIPMENT: N/A

CCR 000002035

IX

SPECIAL PRECAUTIONS

HAZARD CLASSIFICATION INFORMATION

IMCO HAZARD CLASS AND NUMBER N/A	US DOT CLASSIFICATION N/A
UN NUMBER N/A	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 9002-88-4	

TRANSPORTATION AND STORAGE

USUAL SHIPPING CONTAINERS Bags, Boxes, Dry flow cars, Dry flow trucks	ELECTROSTATIC ACCUMULATION HAZARD
	STORAGE/TRANSPORT PRESSURE
STORAGE TRANSPORT TEMPERATURE	LOADING/UNLOADING TEMPERATURE
	VISCOSITY AT LOADING/UNLOADING TEMPERATURE

HANDLING AND STORAGE MATERIALS AND COATINGS

SUITABLE	UNSUITABLE

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CCR 000002036