



*Steve
Reader*

Interoffice Communication

To Chuck Glover
From Tom Grumbles
Date April 27, 1982
Subject PRINTING OF MATERIAL SAFETY DATA SHEETS

Please print the following quantities of the enclosed sheets:

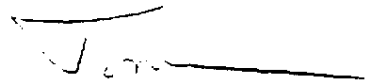
PVC Resin - 200 copies
PVC Dry Blend - 200 copies
PVC Compound - 200 copies
Methyl Chloride - 100 copies
CA-510 - 100 copies

Please note the following:

1. On the PVC Compound MSDS in Section 2 the symbol should be $\leq$; we could not produce it very well on our typewriter.
2. The Methyl Chloride MSDS in Section 5, Toxicity Data has only inhalation data which fill the whole area. If there is anyway to clearly indicate this, brackets, etc., please let me know.

Also, I need to redesign this section to eliminate this problem and others from occurring in the future. The change proposal is coming under separate cover. *Da*

Please call if you have questions on these two items.


Thomas G. Grumbles

ajo

Enclosures

CCR 000002112

DRAFT



Conoco Chemicals
5 Greenway Plaza East
P.O. Box 2197
Houston, Texas 77001

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME Conoco Chemicals Company	
ADDRESS	191 Doremus Avenue, Newark, NJ
TRADE NAME	Conoco CA-510
SYNONYMS	Cresylic Acid
REGULAR TELEPHONE NO.	201/344-3800
EMERGENCY TELEPHONE NO.	318/491-5142

2. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA
2/4, 2/3, 2/5 Xylenols	< 40	
Trimethylphenols	< 35	
2,6 Xylenol	< 33	
o-Cresol	< 5	

3. PHYSICAL DATA

BOILING POINT (°F)	360-455	SPECIFIC GRAVITY (H ₂ O = 1)	1.01-1.03
VAPOR PRESSURE (mm. Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR = 1)		EVAPORATION RATE (Butyl Acetate = 1)	17
SOLUBILITY IN WATER	Trace	MELTING POINT	13°F
APPEARANCE AND ODOR	Sweet tarry odor, Liquid		

4. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	185°F PM	AUTOIGNITION TEMPERATURE	
FLAMMABLE LIMITS IN AIR % BY VOL	LOWER	UPPER	
EXTINGUISHING MEDIA	Water (fog or spray), foam, dry chemical or CO ₂ .		
SPECIAL FIRE FIGHTING PROCEDURES	Wear self-contained breathing apparatus and full protective clothing. Cool tank with water if exposed to fire.		
UNUSUAL FIRE AND EXPLOSION HAZARD	Emits toxic fumes when heated.		

CCR 000002113

5. HEALTH HAZARD INFORMATION

FIRST AID

EYES: Immediately begin flushing with large amounts of water and continue at least for 15 minutes while transporting for emergency medical attention.

SKIN: Remove contaminated clothing. Immediately flush with large amounts of water, then wash affected areas with soap and water. Isopropanol can be used to further remove phenols. Seek medical attention as soon as possible.

INHALATION: Remove from exposure. Administer O₂ by nasal cannulae if available. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.

INGESTION: Drink large amounts of water or weak sodium bicarbonate solution. **DO NOT INDUCE VOMITING.** If spontaneous vomiting occurs, precautions should be taken to avoid aspiration. Seek immediate medical attention.

NATURE OF HAZARD

EYES: Causes severe burns.

SKIN: Causes severe burns. Readily absorbed through the skin resulting in systemic toxicity. Skin exposures can be fatal.

INHALATION: Corrosive. Causes burning of mouth and throat, abdominal pain nausea and vomiting.

INGESTION: No specific information available.

EFFECTS OF OVEREXPOSURE:

ACUTE OVEREXPOSURE: Local skin burns.

CHRONIC OVEREXPOSURE: Dermatitis and chronic poisoning affecting the central nervous system, liver and kidney.

THRESHOLD LIMIT VALUE (TLV)

None established for this specific compound.

Recommended: ACGIH 1981 TLV for cresol (and isomers) 5.0 ppm (22 mg/m³)
8-hour time-weighted average (skin).

TOXICITY DATA

SKIN CONTACT: This specific product has not yet been tested for its toxic properties. However, data on a similar product plus literature data on individual constituents indicate moderate acute oral and dermal toxicity and severe-corrosive contact irritation.

EYE CONTACT: See Above.

INHALATION: See Above.

INGESTION: See Above.

SPECIAL PRECAUTIONS: ALL SKIN CONTACT SHOULD BE AVOIDED. SPEED IN REMOVING CRESYLICS AFTER CONTACT IS IMPORTANT.

6. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY

Not Applicable

INCOMPATIBILITY

Alkalai Metals

HAZARDOUS DECOMPOSITION PRODUCTS

Not Applicable

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Should not occur.

7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Ventilate area. Sawdust, vermiculite or sand may be used to absorb the spill. Pick up mechanically. Use personal protective equipment as appropriate.

NEUTRALIZING CHEMICALS

Two to five percent solution of sodium hydroxide.

WASTE DISPOSAL METHOD

Biological oxidation landfill or incineration according to established Federal procedures.

8. SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS

Ensure that ventilation is adequate to maintain concentration in air less than 5 ppm.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY (SPECIFY IN DETAIL): Full Face organic vapor cartridge or supplied air for high concentrations.

EYE: Chemical safety goggles or face shield with goggles.

GLOVES: Use rubber gloves to prevent skin contact.

OTHER CLOTHING AND EQUIPMENT: Aprons, boots, etc. should be used where needed to prevent skin contact. full slicker suit may be required where exposure is likely.

9. SPECIAL PRECAUTIONS

HAZARD CLASSIFICATION INFORMATION

IMCO HAZARD CLASS AND NUMBER Class 8.0	US DOT CLASSIFICATION DOT: Corrosive
UN NUMBER 1760	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 1300-71-6 Xylenols 26998-80-1 Tri-methyl phenols	HAZARDOUS WASTE NO - U054

TRANSPORTATION AND STORAGE

USUAL SHIPPING CONTAINERS Tank cars, tank trucks, drums.	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
Stainless steel Glasslined Heresite-lined Carbon steel - for short periods if kept dry.	Brass and copper - cause rapid discoloration

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CCR 000002116

March 1982



John
RF

Conoco Chemicals Company
A Division of Conoco Inc
5 Greenway Plaza East
P.O. Box 2197
Houston, TX 77001

May 3, 1982

Mr. John Buzzard
UCC Corporation
Rt. #2, Box 180
Sistersville, WV 26175

Dear Mr. Buzzard:

Enclosed per your request is a Material Safety Data Sheet for Conoco Chemicals' "Alfol" 16 alcohol.

Please let me know if you have further questions regarding the safety and health aspects of this product.

Sincerely,

A handwritten signature in cursive script, appearing to read "Thomas G. Grumbles".

Thomas G. Grumbles, Director
Industrial Hygiene

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Enclosure

CCR 000002104

11

CONOCO

Reader

Interoffice Communication

To Jan Dopper
From Tom Grumbles
Date December 1, 1980
Subject TECHNICAL DATA SHEETS FOR EDC AND VCM

As we discussed the content of the safe handling section of the Technical Sheets is to be limited from that in the past with a statement that alerts readers to refer to the Material Safety Data Sheets for complete information. Enclosed is the suggested text for the subject sheets. Please call if you have questions.

The new disclaimer to be used on all Conoco Chemicals technical information is below. It should be inserted in place of the old one on the current sheets.

The above data are based on tests and experience which Conoco believes reliable and are supplied for informational purposes only. Conoco disclaims any liability for damage or injury which results from the use of the enclosed data and nothing contained therein shall constitute a guarantee, warranty or representation (including freedom from patent liability) by Conoco with respect to the data, the product described, or their use for any specific purpose, even if that purpose is known to Conoco. For detailed information regarding this product, please refer to the respective Conoco Chemicals Company Material Safety Data Sheet.

Thomas G. Grumbles/ajo

Thomas G. Grumbles

ajo

Enclosure

cc Gene Wright
Norman Frost



Conoco Chemicals
5 Greenway Plaza East
P.O. Box 2197
Houston, Texas 77001

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME	Conoco Chemicals		
ADDRESS	P.O. Box 91 - Aberdeen, Mississippi 39730		
TRADE NAME	Polyvinylchloride, PVC Compound		
SYNONYMS	Vinyl Polymers		
REGULAR TELEPHONE NO.	601/369-811	EMERGENCY TELEPHONE NO.	318/491-5142

2. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA
Less than 1.0ppm residual vinyl chloride monomer.		
PVC compound may contain the following metal additives:		

3. PHYSICAL DATA

BOILING POINT (°F)	Solid	SPECIFIC GRAVITY (H ₂ O = 1)	1.4
VAPOR PRESSURE (mm Hg.)	Solid	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	Solid	EVAPORATION RATE (_____ = 1)	Solid
SOLUBILITY IN WATER	None	MELTING POINT	
APPEARANCE AND ODOR	Pellets of varying size, hardness, and color.		

4. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	Not Applicable	AUTOIGNITION TEMPERATURE	
FLAMMABLE LIMITS IN AIR, % BY VOL	LOWER	UPPER	
EXTINGUISHING MEDIA	Water spray, CO ₂ , Dry Chemical		
SPECIAL FIRE FIGHTING PROCEDURES	When fighting fires in confined spaces, self-contained breathing apparatus should be worn.		
UNUSUAL FIRE AND EXPLOSION HAZARD	PVC evolves hydrogen chloride, carbon monoxide, and other toxic gases when burned. Exposure to combustion products may be fatal		

CCR 000002117

HEALTH HAZARD INFORMATION

FIRST AID

EYES: Flush with large amounts of water for 15 minutes.

SKIN:

INHALATION:

INGESTION: Seek medical aid.

NATURE OF HAZARD

EYES: Under normal use conditions, no hazard. Physical irritation of the eyes may occur if exposed to high concentration of dust.

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

INHALATION: Under normal conditions and with normal use, no inhalation hazard is presented.

INGESTION: No significant health hazard can be reasonably anticipated.

EFFECTS OF OVEREXPOSURE:

ACUTE OVEREXPOSURE: Physical irritation of the eyes.

CHRONIC OVEREXPOSURE: None anticipated.

THRESHOLD LIMIT VALUE (TLV)

None established.

ACGIH TLV of 10 mg/m³ total dust as an 8-hour TWA is recommended.

TOXICITY DATA

SKIN CONTACT: A review of the pertinent literature did not reveal specific information for PVC.

EYE CONTACT: A review of the pertinent literature did not reveal specific information for PVC.

INHALATION: Rodents exposed to PVC by the dietary or inhalation route for 6 to 24 months have shown no significant toxicological effects.

INGESTION: See Above.

SPECIAL PRECAUTIONS: AVOID INHALATION OF COMBUSTION PRODUCTS

CCR 000002118

6. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY

Not Applicable.

INCOMPATIBILITY

Not Applicable.

HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen chloride and other toxic fumes generated with combustion.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Not Applicable.

7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Material should be picked up mechanically.

NEUTRALIZING CHEMICALS

WASTE DISPOSAL METHOD

This material can be sent to a sanitary landfill for disposal.

8. 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, an approved air-purifying respirator should be used.

EYE: Chemical goggles.

GLOVES Necessary when handling hot or molten resins.

OTHER CLOTHING AND EQUIPMENT:

CCR 000002119

9. SPECIAL PRECAUTIONS

IMCO HAZARD CLASS AND NUMBER	US DOT CLASSIFICATION
UN NUMBER	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 9002-86-2	

TRANSPORTATION AND STORAGE

USUAL SHIPPING CONTAINERS Poly-lined steel tank cars or trucks	ELECTROSTATIC ACCUMULATION HAZARD Yes - Ground transfer lines
	STORAGE/TRANSPORT PRESSURE
STORAGE TRANSPORT TEMPERATURE Temperatures above 150°F may cause slow degradation.	LOADING/UNLOADING TEMPERATURE
	VISCOSITY AT LOADING/ UNLOADING TEMPERATURE

HANDLING AND STORAGE MATERIALS AND COATINGS

SUITABLE	UNSUITABLE
Stainless or poly-lined.	

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11/17/81
3/82

CCR 000002120



Conoco Chemicals
5 Greenway Plaza East
P.O. Box 2197
Houston, Texas 77001

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME	Conoco Chemicals		
ADDRESS	P.O. Box 91 - Aberdeen, Mississippi 39730		
TRADE NAME	Polyvinylchloride, PVC Resin		
SYNONYMS	Vinyl Polymers		
REGULAR TELEPHONE NO.	601/369-8111	EMERGENCY TELEPHONE NO.	318/491-5142

2. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA
Less than 10 ppm residual vinyl chloride monomer.		

3. PHYSICAL DATA

VAPOR PRESSURE (mm Hg.)	Solid	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	Solid	EVAPORATION RATE (_____ = 1)	Solid

APPEARANCE AND ODOR	Fine white powder
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4. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	Not Applicable	AUTOIGNITION TEMPERATURE	
FLAMMABLE LIMITS IN AIR, % BY VOL	LOWER		UPPER
EXTINGUISHING MEDIA	Water spray, CO ₂ , Dry Chemical		
SPECIAL FIRE FIGHTING PROCEDURES	When fighting fires in confined spaces, self-contained breathing apparatus should be worn.		
UNUSUAL FIRE	PVC evolves hydrogen chloride, carbon monoxide, and other toxic		

CCR 000002121

5. HEALTH HAZARD INFORMATION

FIRST AID

EYES: Flush with large amounts of water for 15 minutes.

SKIN:

INHALATION:

INGESTION: Seek medical aid.

NATURE OF HAZARD

EYES: If exposed to high concentration of dust, a physical irritation of the eyes.

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

INHALATION: Under normal conditions and with normal use, no inhalation hazard is presented.

INGESTION: No significant health hazard can be reasonably anticipated.

EFFECTS OF OVEREXPOSURE:

ACUTE OVEREXPOSURE: Physical irritation of the eyes.

CHRONIC OVEREXPOSURE: Long term exposure to high dust concentrations may cause obstructive lung disease.

THRESHOLD LIMIT VALUE (TLV)

None established.

ACGIH TLV of 10 mg/m³ total dust as an 8-hour TWA is recommended.

TOXICITY DATA

SKIN CONTACT: A review of the pertinent literature did not reveal specific information for PVC.

EYE CONTACT: A review of the pertinent literature did not reveal specific information for PVC.

INHALATION: Rodents exposed by the dietary or inhalation route for 6 to 24 months have shown no significant toxicological effects.

INGESTION: See Above.

6. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY

Not Applicable.

INCOMPATIBILITY

Not Applicable.

HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen chloride and other toxic fumes generated with combustion.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Not Applicable.

7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Material should be picked up mechanically.

NEUTRALIZING CHEMICALS

WASTE DISPOSAL METHOD

This material can be sent to a sanitary landfill for disposal.

8. 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, an approved air-purifying respirator should be used.

EYE: Chemical goggles.

GLOVES: Necessary when handling hot or molten resins.

OTHER CLOTHING AND EQUIPMENT:

CCR 000002123

9. SPECIAL PRECAUTIONS	
HAZARD CLASSIFICATION INFORMATION	
IMCO HAZARD CLASS AND NUMBER	US DOT CLASSIFICATION
UN NUMBER	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 9002-86-2	
TRANSPORTATION AND STORAGE	
USUAL SHIPPING CONTAINERS Poly-lined steel tank cars or trucks	ELECTROSTATIC ACCUMULATION HAZARD Yes - Ground transfer lines
	STORAGE/TRANSPORT PRESSURE
STORAGE TRANSPORT TEMPERATURE Temperatures above 150°F may cause slow degradation.	LOADING/UNLOADING TEMPERATURE
	VISCOSITY AT LOADING/ UNLOADING TEMPERATURE
HANDLING AND STORAGE MATERIALS AND COATINGS	
SUITABLE	UNSUITABLE
Stainless or poly-lined.	

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11/17/81
3/82

CCR 000002124



Conoco Chemicals
5 Greenway Plaza East
P.O. Box 2197
Houston, Texas 77001

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME Conoco Chemicals

ADDRESS P.O. Box 91 - Aberdeen, Mississippi 39730

TRADE NAME Polyvinylchloride, PVC Dry Blend

SYNONYMS Vinyl Polymers

REGULAR TELEPHONE NO. 601/369-8111

EMERGENCY TELEPHONE NO. 318/491-5142

2. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA
Less than 5.0ppm residual vinyl chloride monomer.		
Dry Blend may contain trace amounts (<.01%) of Tin in the finished product		

3. PHYSICAL DATA

BOILING POINT (°F)	Solid	SPECIFIC GRAVITY (H ₂ O = 1)	1.4
VAPOR PRESSURE (mm Hg.)	Solid	PERCENT VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR = 1)	Solid	EVAPORATION RATE (_____ = 1)	Solid
SOLUBILITY IN WATER	None	MELTING POINT	
APPEARANCE AND ODOR	Fine white powder		

4. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	Not Applicable	AUTOIGNITION TEMPERATURE	
FLAMMABLE LIMITS IN AIR, % BY VOL	LOWER		UPPER
EXTINGUISHING MEDIA	Water spray, CO ₂ , Dry Chemical		
SPECIAL FIRE FIGHTING PROCEDURES	When fighting fires in confined spaces, self-contained breathing apparatus should be worn.		
UNUSUAL FIRE AND EXPLOSION HAZARD	PVC evolves hydrogen chloride, carbon monoxide, and other toxic gases when burned. Exposure to combustion products may be fatal and should be avoided.		

CCR 000002125

5. HEALTH HAZARD INFORMATION

FIRST AID

EYES: Flush with large amounts of water for 15 minutes.

SKIN:

INHALATION:

INGESTION: Seek medical aid.

NATURE OF HAZARD

EYES: If exposed to high concentration of dust, physical irritation of the eyes.

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

INHALATION: Under normal conditions and with normal use no inhalation hazard is presented.

INGESTION: No significant health hazard can be reasonably anticipated.

EFFECTS OF OVEREXPOSURE:

ACUTE OVEREXPOSURE: Physical irritation of the eyes.

CHRONIC OVEREXPOSURE: Long term exposure to high dust concentrations may cause obstructive lung disease.

THRESHOLD LIMIT VALUE (TLV)

None established.

ACGIH TLV of 10 mg/m³ total dust as an 8-hour TWA is recommended.

TOXICITY DATA

SKIN CONTACT: A review of the pertinent literature did not reveal specific information for PVC.

EYE CONTACT: A review of the pertinent literature did not reveal specific information for PVC.

INHALATION: Rodents exposed by the dietary or inhalation route for 6 to 24 months have shown no significant toxicological effect.

INGESTION: See Above.

SPECIAL PRECAUTIONS: AVOID INHALATION OF COMBUSTION PRODUCTS

6. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY

Not Applicable.

INCOMPATIBILITY

Not Applicable.

HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen chloride and other toxic fumes generated with combustion.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Not Applicable.

7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Material should be picked up mechanically.

NEUTRALIZING CHEMICALS

WASTE DISPOSAL METHOD

This material can be sent to a sanitary landfill for disposal.

8. 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, an approved air-purifying respirator should be used.

EYE: Chemical goggles.

GLOVES: Necessary when handling hot or molten resins.

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OTHER CLOTHING AND EQUIPMENT:

CCR 000002127

9: SPECIAL PRECAUTIONS

HAZARD CLASSIFICATION INFORMATION

IMCO HAZARD CLASS AND NUMBER	US DOT CLASSIFICATION
UN NUMBER	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 9002-86-2	

TRANSPORTATION AND STORAGE

USUAL SHIPPING CONTAINERS Poly-lined steel tank cars or trucks	ELECTROSTATIC ACCUMULATION HAZARD Yes - Ground transfer lines
	STORAGE/TRANSPORT PRESSURE
STORAGE TRANSPORT TEMPERATURE Temperatures above 150°F may cause slow degradation.	LOADING/UNLOADING TEMPERATURE
	VISCOSITY AT LOADING/ UNLOADING TEMPERATURE

HANDLING AND STORAGE MATERIALS AND COATINGS

SUITABLE	UNSUITABLE
Stainless or poly-lined.	

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11/17/81
3/82

CCR 000002128

6. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY

High temperatures, hydrolyzes in presence of water

INCOMPATIBILITY Strong oxidizers, Amines, Amides, Magnesium. Explodes on contact with sodium and alkali metals. Forms spontaneously flammable alkyl on contact with aluminum.

HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen chloride, and phosgene in lesser amounts.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Not likely to occur.

7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Eliminate sources of ignition, evacuate the area and increase ventilation if possible to disperse vapors.

NEUTRALIZING CHEMICALS

WASTE DISPOSAL METHOD

Incinerate under controlled conditions in equipment with a hydrochloric acid scrubber according to local, state, and federal regulations.

8. SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS

Mechanical ventilation with Class I, Division I fans should be used when handling this product. Local exhaust ventilation where possible.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY (SPECIFY IN DETAIL):

NIOSH approved organic vapor respirator or air supplied equipment dependent on concentration.

EYE:

Chemical goggles to protect from liquid contact.

GLOVES:

Neoprene or polyvinyl alcohol gloves should be used to avoid skin contact with liquid.

OTHER CLOTHING AND EQUIPMENT:

Other impervious clothing may be necessary to avoid skin contact with the liquid.



Conoco Chemicals
5 Greenway Plaza East
P.O. Box 2197
Houston, Texas 77001

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME	Conoco Chemicals Company		
ADDRESS	P.O. Box 727, Westlake, LA 70669		
TRADE NAME	Methyl Chloride		
SYNONYMS	Chloromethane		
REGULAR TELEPHONE NO.	318/491-5403	EMERGENCY TELEPHONE NO.	318/491-5142

2. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA
Methyl Chloride	100	

3. PHYSICAL DATA

BOILING POINT (°F)	-11°F	SPECIFIC GRAVITY(H ₂ O = 1)	0.92
VAPOR PRESSURE (mm Hg.)	3672 @ 68°F	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR = 1)	1.74 @ 32°F	EVAPORATION RATE (_____ = 1)	
SOLUBILITY IN WATER	2.2% @ 68°F	MELTING POINT	
APPEARANCE AND ODOR	Faintly sweet smelling gas		

4. FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	Below 32 ⁰ F	AUTOIGNITION TEMPERATURE	1170 ⁰ F	
FLAMMABLE LIMITS IN AIR. % BY VOL	LOWER	8.1	UPPER	17.2
EXTINGUISHING MEDIA	Water fog, CO ₂ , Dry chemical			
SPECIAL FIRE FIGHTING PROCEDURES	Self-contained breathing apparatus should be worn while fighting fires. Cool exposed equipment with water spray.			
UNUSUAL FIRE AND EXPLOSION HAZARD	When burning, methyl chloride releases high concentrations of hydrogen chloride. Lesser amounts of phosgene will also be released.			

CCR 000002129

9. SPECIAL PRECAUTIONS

HAZARD CLASSIFICATION INFORMATION

IMCO HAZARD CLASS AND NUMBER 2.1	US DOT CLASSIFICATION Flammable Gas
UN NUMBER 1063	EEC DANGEROUS SUBSTANCE CLASSIFICATION
ADR CLASS NUMBER	EEC SPECIAL RISKS AND SAFETY ADVICE
CAS NUMBER 74-87-3	HAZARDOUS WASTE NO. U045

TRANSPORTATION AND STORAGE

USUAL SHIPPING CONTAINERS	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
Carbon Steel for dry product	Aluminum Magnesium Sodium Alkalai Metals

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1/5/82

5. HEALTH HAZARD INFORMATION

FIRST AID

EYES: With liquid contact flush eyes with large amounts of water for at least 15 minutes. Seek medical aid.

SKIN: With liquid contact flush with water for 15 minutes. If irritation persists, seek medical aid.

INHALATION: Remove to fresh air. If breathing has stopped give artificial respiration or cardio-pulmonary resuscitation if needed.

INGESTION:

NATURE OF HAZARD

EYES: Gas at room temperature. Exposure to concentrated vapor or liquid form may cause irritation.

SKIN: Gas at room temperature. Vaporizing liquid may cause frost-bite type burn due to rapid cooling. Not absorbed through the skin in toxic amounts.

INHALATION: Exposure to vapor results in narcosis and other nervous system effects. Symptoms of inhalation can be delayed.

INGESTION:

EFFECTS OF OVEREXPOSURE:

ACUTE OVEREXPOSURE: Dizziness, staggering gait, drowsiness progressing to unconsciousness, coma; possibly fatal.

CHRONIC OVEREXPOSURE: Fatigue loss of appetite, muscular weakness and possible degenerative changes in the central nervous system.

THRESHOLD LIMIT VALUE (TLV)

1980 ACGIH TLV: 50 ppm eight-hour time weighted average
100 ppm short term exposure limit

TOXICITY DATA

SKIN CONTACT:

A review of the literature reveals no specific toxicity data available regarding skin and eye contact or ingestion. The following information is available concerning chronic inhalation effects:

EYE CONTACT:

LC50 in mice : 3,146 ppm at 7 hours
LC50 in rats: 76,000 ppm at 30 minutes
Adverse tissue effects seen at these levels include damage

INHALATION:

to the red blood cells, kidney, liver, nervous system and cardiovascular system of the animals. Reproductive effects seen in mice at 500 ppm but not at 250 ppm. Kidney tumors produced in mice with 2 year exposure to 1,000 ppm. No effects seen at 50 and 225 ppm.

INGESTION:

SPECIAL PRECAUTIONS: EXPERIMENTAL MUTAGEN AND CARCINOGEN