



NORSOCRYL(R) 205

Material Safety Data Sheet

Arkema Inc.

1 PRODUCT AND COMPANY IDENTIFICATION

Acrylic Monomers

Arkema Inc.
2000 Market Street
Philadelphia, PA 19103

EMERGENCY PHONE NUMBERS:

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 767-5089 (24Hrs)

Information Telephone Numbers	Phone Number	Available Hrs
Customer Service	800-338-1015	8:00 to 6:00 EST

Product Name NORSOCRYL(R) 205
Product Synonym(s)

Chemical Family Mixture

Chemical Formula

Chemical Name Mixture

EPA Reg Num

Product Use

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical Wt. %	OSHA
N-Methyl-2-pyrrolidone	872-50-4	50 %	Y
Phenothiazine	92-84-2	50 %	Y

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

This material is classified as hazardous under Federal OSHA regulation.

The components of this product are all on the TSCA Inventory list.

3 HAZARDS IDENTIFICATION

Emergency Overview

Colorless liquid with amine-like odor

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.

MAY CAUSE EYE AND SKIN IRRITATION.

MAY CAUSE RESPIRATORY TRACT IRRITATION.

CAN CAUSE LIGHT-INDUCED SKIN REACTION

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on its composition, it is anticipated to be moderately irritating to eyes and skin. Repeated or prolonged contact may cause redness, blistering and cracking of skin. Direct contact may be irritating to skin with severe itching, redness and discoloration of hair and fingernails. Individuals exposed to this material may experience light-induced skin reactions (photosensitization). Overexposure to vapors may cause slight eye and respiratory irritation. If swallowed, this material may result in irritation of the digestive tract, nausea and vomiting.

4 FIRST AID MEASURES

IF IN EYES, immediately flush with plenty of water. Get medical attention if irritation persists.

IF SWALLOWED, do NOT induce vomiting. Give water to drink. Get medical attention immediately. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

IF ON SKIN, flush the area with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops and persists.

5 FIRE FIGHTING MEASURES**Fire and Explosive Properties**

Auto-Ignition Temperature	NE	
Flash Point	91 C (196 F)	Flash Point Method
Flammable Limits- Upper	NE	
Lower	NE	

Extinguishing Media

Use water spray, carbon dioxide, foam or dry chemical.

Fire Fighting Instructions

Use water spray to cool containers exposed to fire. Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards

When burned, the following hazardous products of combustion can occur:

Oxides of carbon
Nitrogen oxides
Sulfur oxides

6 ACCIDENTAL RELEASE MEASURES**In Case of Spill or Leak**

Isolate hazard area and deny entry to unnecessary or unprotected personnel. Contain spilled liquid with sand or earth. Clean up spill immediately, observing precautions in the Personal Protection section of MSDS. Avoid runoff into storm sewers and ditches which lead to waterways.

7 HANDLING AND STORAGE**Handling**

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
Keep away from heat and flame.

7 HANDLING AND STORAGE

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. **DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.**

Storage

This product should be stored in a closed container, away from direct sunlight, at ambient temperatures. Storage of this product at elevated temperatures (>30 C or >85 F) reduces the shelf-life. The typical shelf-life for this product is 12 months. An air space is required above the liquid in all containers; avoid storage under an oxygen-free atmosphere.

The stability of this product should be checked periodically; typically every 90 days for bulk containers. Materials recommended for packaging include: stainless steel, aluminum, glass, HDPE, PP or PTFE.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Eye / Face Protection

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available.

Skin Protection

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear face shield and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

Respiratory Protection

Avoid breathing vapor or mist. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Guidelines for Ingredients

Exposure Limit	Value
N-Methyl-2-pyrrolidone	
WEEL-AIHA Skin Designator	Y
WEEL TWA	10 ppm 40 mg/m3
Phenothiazine	
ACGIH Skin designator	Y
ACGIH TWA	5 mg/m3

- Only those components with exposure limits are printed in this section.
- Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.
- ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.
- WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Colorless liquid with amine-like odor
pH	7- 7.8
Specific Gravity	NE
Vapor Pressure	0.32 hPa @ 20 C
Vapor Density	1140 kg/m ³ @ 20 C
Melting Point	- 80 C
Freezing Point	- 25 C
Boiling Point	202 C
Solubility In Water	NE

10 STABILITY AND REACTIVITY

Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

Incompatibility

Avoid contact with strong acids and strong oxidizing agents.

Hazardous Decomposition Products

Ammonia and oxides of carbon and nitrogen can be liberated at high temperatures.

11 TOXICOLOGICAL INFORMATION

Toxicological Information

Data on this material and/or its components are summarized below.

Phenothiazine

Single exposure (acute) studies indicate that this material is slightly toxic if swallowed (rat LD50 5,000 mg/kg), practically non-toxic if absorbed through skin (rabbit LD50 >9,400 mg/kg), practically non-toxic if inhaled (rat 1-hr LC50 >200 mg/l) and non-irritating to rabbit eyes (0.0/110) and skin (0.0/8.0).

Light-induced skin reactions have occurred in humans. Heart effects were observed in the offspring of women who took this material for therapeutic purposes during pregnancy. Repeated oral administration produced effects in the liver and kidneys of rabbits. Adverse effects on the blood and spleen were observed in dogs following repeated oral exposure. Generally, no genetic changes were observed in tests using bacteria or animal cells. A positive response was reported in two tests using animal cells.

N-Methyl-2-pyrrolidone

Single exposure (acute) studies indicate that this material is slightly toxic if swallowed (rat LD50 3,900-4,300 mg/kg) or inhaled (rat 4-hr LC50 3.1-8.8 mg/l), practically non-toxic if absorbed through skin (rabbit LD50 4,000-

11 TOXICOLOGICAL INFORMATION

8,000 mg/kg), moderately irritating to rabbit eyes and slightly to moderately irritating to rabbit skin.

No skin allergy was observed in humans or guinea pigs following repeated exposure to this material; however, workplace experience indicates that repeated or prolonged contact may cause severe dermatitis including blistering, cracking, or swelling of skin. Headaches and eye irritation have been reported in workers exposed to low levels (0.7 ppm) while levels from 49-83 ppm were extremely irritating. Repeated oral administration to rats and dogs produced no adverse effects while rabbits showed effects on the heart, liver, kidneys and gastrointestinal tract. Repeated administration in the feed of mice showed kidney effects, while rats showed decreased body weight and weight gain and blood effects. Effects on bone marrow, testes and thymus were also seen but were considered to be secondary to nutritional and body weight effects. Repeated inhalation by rats produced focal pneumonia, bone marrow hyperplasia, degeneration of spleen, thymus and testes, and increases in white blood cells. Long-term exposure of rats to vapor resulted in reduced body weight at the high dose level, but no systemic or carcinogenic effects. Birth defects were observed in the offspring of rats exposed by inhalation and skin application during pregnancy, but only at levels which produced adverse effects on the mothers. Oral administration to pregnant rats, mice and rabbits produced developmental effects and birth defects on the offspring, but only at maternally toxic doses. No reproductive effects were observed in rats exposed prior to and during mating and during pregnancy. Generally, no genetic changes were observed in tests using bacteria or animal cells. It has produced genetic changes in yeast. Metabolism studies have shown that this material is readily excreted in the urine with 75% eliminated within 12 hours.

12 ECOLOGICAL INFORMATION**Ecotoxicological Information**

Data on this material and/or its components are summarized below.

N-Methyl-2-pyrrolidone

This material is practically non-toxic to fish (96-hr LC50 832-4000 mg/l), Daphnia magna (48-hr EC50 1,107-4,897 mg/l) and algae (72-hr IC50 >500 mg/l).

Chemical Fate Information

Data on this material and/or its components are summarized below.

N-Methyl-2-pyrrolidone

Biodegradation studies in semi-continuous activated sludge testing and in a river die-away test show that this material is readily biodegradable with 95% degradation in 1-2 weeks.

Phenothiazine

The log Pow is 4.05.

13 DISPOSAL CONSIDERATIONS**Waste Disposal**

Incineration is the recommended method for disposal observing all local, state and federal regulations. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.



14 TRANSPORT INFORMATION

DOT Name Non-Bulk Domestic/Bulk and Non-Bulk International:
Not Regulated

DOT Technical Name

DOT Hazard Class

UN Number

DOT Packing Group PG

RQ

DOT Special Information Domestic Bulk Shipments:

Combustible liquid, n.o.s.
(n-Methylpyrrolidone)
Combustible liquid
NA 1993
PG III

15 REGULATORY INFORMATION

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	Y	Fire	Y
Delayed (Chronic) Health	N	Reactive	N
		Sudden Release of Pressure	N

The components of this product are all on the TSCA Inventory list.

Ingredient Related Regulatory Information:

SARA Reportable Quantities

	CERCLA RQ	SARA TPQ
N-Methyl-2-pyrrolidone	NE	
Phenothiazine	NE	

SARA Title III, Section 313

This product does contain chemical(s) which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. See Section 2

N-Methyl-2-pyrrolidone

California Prop 65 - Developmental Toxin

This product does contain the following chemical(s), as indicated below, currently on the California List of Developmental Toxins.

N-Methyl-2-pyrrolidone

Massachusetts Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Massachusetts Right to Know Substance List.

N-Methyl-2-pyrrolidone

Phenothiazine

New Jersey Right to Know

This product does contain the following chemical(s), as indicated below, currently on the New Jersey Right-to-Know Substances List.

Phenothiazine

Pennsylvania Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List.

N-Methyl-2-pyrrolidone

Phenothiazine

**16 OTHER INFORMATION****Revision Information**

Revision Date 11 OCT 2004 Revision Number 8

Supercedes Revision Dated 22-OCT-2003

Revision Summary

ATOFINA Chemicals, Inc. has changed its name to Arkema Inc.

Key

NE= Not Established NA= Not Applicable (R) = Registered Trademark

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