

MATERIAL SAFETY DATA SHEET

P1395A BLACK

Version Number 1.0
Revision Date 02/26/2003

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
2700 Papin Street, St. Louis, MO 63103

NON-EMERGENCY TELEPHONE : Product Stewardship, (314) 771-1800

Emergency telephone number : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name : P1395A BLACK

Product code : FO00012895

Chemical Name : Mixture

CAS-No. : Mixture

Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
Carbon black	1333-86-4	0.1 - 1
Acetone	67-64-1	1 - 5
Dimethylformamide	68-12-2	1 - 5
Methyl alcohol	67-56-1	5 - 10
Cyclohexanone	108-94-1	5 - 10
Toluene	108-88-3	10 - 30
Methyl isobutyl ketone	108-10-1	10 - 30
Methyl ethyl ketone	78-93-3	30 - 60

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Flammable. May be harmful if inhaled. Harmful if swallowed. May cause skin irritation. Flammable liquid and vapor. Vapors may be irritating to eyes and respiratory tract. This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. In addition, heating or processing this material may result in product degradation or byproduct formation creating additional hazards. See Sections 8 and 11 for additional details.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Skin contact, Ingestion

Acute exposure

Inhalation : Excessive inhalation of product vapors may cause respiratory irritation, headaches, dizziness, and/or nausea.

Ingestion : May be harmful if swallowed. May cause nausea, abdominal spasms

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- and irritation of the mucous membranes.
- Eyes : Liquid, aerosol, or vapors of this product are irritating and may cause tearing, reddening, and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.
- Skin : Prolonged or repeated skin contact can cause de-fatting and drying of the skin which may result in skin irritation and dermatitis (rash).
- Chronic exposure** : Refer to Section 11 for Toxicological Information.
- Medical Conditions Aggravated by Exposure:** : Individuals with chronic respiratory disorders (i.e. asthma, chronic bronchitis, etc.) may be adversely affected by any airborne contaminant.

4. FIRST AID MEASURES

- Inhalation : Move to fresh air in case of accidental inhalation of vapours or decomposition products. Seek medical attention after significant exposure.
- Ingestion : Do not induce vomiting without medical advice. If conscious, drink plenty of water. Seek medical attention if necessary.
- Eyes : Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, seek medical attention.
- Skin : Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

5. FIRE-FIGHTING MEASURES

- Flash point : Less than 75 °F (24 °C)
- Flammable Limits
- Upper explosion limit : No data available.
- Lower explosion limit : No data available.
- Autoignition temperature : No data available.
- Suitable extinguishing media : foam, dry chemical, carbon dioxide (CO₂), Water spray.
- Special Fire Fighting Procedures : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
- Unusual Fire/Explosion Hazards : None

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
- Environmental precautions : Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.

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Methods for cleaning up : Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Handling : Flammable liquid. Keep away from flames, hot surfaces, and sources of ignition. Use of non-sparking or explosion-proof equipment may be necessary. Never use compressed air for transferring product. Ensure all equipment is electrically grounded before beginning transfer operations. Take measures to prevent the build up of static electricity. Use only in area provided with appropriate exhaust ventilation.

Storage : Store below 120 °F (49 °C) Keep containers tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Flammable Liquid. Check local fire regulations for sprinkler or explosion proof storage location requirements.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection : Airborne contaminant levels should be maintained below the occupational exposure guidelines. When respiratory protection is required, use an approved air-purifying or positive pressure supplied-air respirator, depending upon potential airborne contaminant concentrations. Employees using respirators must be properly trained. Employers must follow applicable regulations such as OSHA 29 CFR 1910.134.

Eye/Face Protection : Wear goggles or face shield during operations that present a splash potential.

Hand protection : Protective gloves.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Additional Protective Measures : Safety shoes.

General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Ensure adequate ventilation, especially in confined areas.

Engineering measures : Provide general and/or local exhaust ventilation to control airborne contaminant levels below the exposure guidelines.

Exposure limit(s)

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Components	Value	Exposure time	Exposure type	List:
Acetone	500 ppm 1,188 mg/m ³	Time Weighted Average (TWA):		ACGIH
	750 ppm 1,782 mg/m ³	Short Term Exposure Limit (STEL):		ACGIH
Acetone	1,000 ppm 2,400 mg/m ³	PEL:		OSHA Z1
Carbon black	3.5 mg/m ³	Time Weighted Average (TWA):	Total dust. as carbon black	ACGIH
Carbon black	3.5 mg/m ³	PEL:	Total dust. as carbon black	OSHA Z1
Methyl alcohol	200 ppm	Time Weighted Average (TWA):	Vapor.	ACGIH
	250 ppm	Short Term Exposure Limit (STEL):	Vapor.	ACGIH
Methyl alcohol	200 ppm 260 mg/m ³	PEL:	Vapor.	OSHA Z1
Toluene	50 ppm	Time Weighted Average (TWA):		ACGIH
Toluene	200 ppm	Time Weighted Average (TWA):		OSHA Z2
	300 ppm	Ceiling Limit Value:		OSHA Z2
	500 ppm	Maximum concentration:		OSHA Z2
Toluene	100 ppm 375 mg/m ³	Recommended exposure limit (REL):		NIOSH
	150 ppm 560 mg/m ³	Short Term Exposure Limit (STEL):		NIOSH
Methyl isobutyl ketone	50 ppm 205 mg/m ³	Time Weighted Average (TWA):	Vapor.	ACGIH
	75 ppm 307 mg/m ³	Short Term Exposure Limit (STEL):	Vapor.	ACGIH
Methyl isobutyl ketone	100 ppm 410 mg/m ³	PEL:	Vapor.	OSHA Z1
Methyl isobutyl ketone	50 ppm 205 mg/m ³	Time Weighted Average (TWA):	Vapor.	OSHA Z1A
	75 ppm 300 mg/m ³	Short Term Exposure Limit (STEL):	Vapor.	OSHA Z1A
Cyclohexanone	25 ppm	Time Weighted Average (TWA):	Vapor and aerosol.	ACGIH
Cyclohexanone	50 ppm 200 mg/m ³	PEL:	Vapor and aerosol.	OSHA Z1
Methyl ethyl ketone	200 ppm	Time Weighted Average (TWA):	Vapor.	ACGIH
	300 ppm	Short Term Exposure Limit (STEL):	Vapor.	ACGIH
Methyl ethyl ketone	200 ppm 590 mg/m ³	Recommended exposure limit (REL):		NIOSH

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	300 ppm 885 mg/m ³	Short Term Exposure Limit (STEL):		NIOSH
Dimethylformamide	10 ppm	Time Weighted Average (TWA):	Vapor.	ACGIH
Dimethylformamide	10 ppm 30 mg/m ³	PEL:	Vapor.	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Liquid	Evaporation rate	: Faster than Butyl Acetate
Appearance	: Liquid	Specific Gravity	: Not determined
Color	: BLACK	Bulk density	: Not applicable.
Odor	: Solvent	Vapor pressure	: Not determined
Melting point/range	: Not applicable.	Vapor density	: Heavier than air.
Boiling Point:	: No data available.	pH	: Not determined
Water solubility	: Negligible		

10. STABILITY AND REACTIVITY

Stability	: Stable.
Hazardous Polymerization	: Will not occur.
Conditions to avoid	: Keep away from oxidizing agents and open flame. Heat, flames and sparks.
Incompatible Materials	: Incompatible with strong acids and oxidizing agents.
Hazardous decomposition products	: Carbon dioxide (CO ₂), carbon monoxide (CO), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
67-64-1	Acetone	Irritant	Eyes, Skin, Respiratory system.
		Systemic effects	Eyes, Skin, Respiratory system, central nervous system.
68-12-2	Dimethylformamide	Irritant	Eyes, Skin.
		Systemic effects	Liver, Kidney, central nervous system, blood and blood forming system.
		Systemic effects	reproductive system.

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67-56-1	Methyl alcohol	Systemic effects	Eyes, Skin, Respiratory system, central nervous system, digestive system.
108-94-1	Cyclohexanone	Systemic effects	Eyes, Skin, Respiratory system, Liver, Kidney, central nervous system.
108-88-3	Toluene	Systemic effects	central nervous system, Liver, Kidney, urinary system.
		Irritant	Skin, Eyes.
108-10-1	Methyl isobutyl ketone	Systemic effects	central nervous system, reproductive system.
		Irritant	Eyes.
78-93-3	Methyl ethyl ketone	Irritant	Eyes, Skin, Respiratory system.
		Systemic effects	central nervous system.

LC50 / LD50

This product contains the following components which in their pure form have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
1333-86-4	Carbon black	Oral LD50 Dermal LD50	> 15,400 mg/kg > 3 gm/kg	rat rabbit
67-64-1	Acetone	LC50 Oral LD50	50100 mg/m ³ 5,800 mg/kg	rat rat
68-12-2	Dimethylformamide	LC50 Oral LD50 Dermal LD50	9400 mg/m ³ 2,800 mg/kg 4,720 mg/kg	mouse rat rabbit
67-56-1	Methyl alcohol	LC50 Oral LD50 Dermal LD50	64000 ppm/4H 5,628 mg/kg 15,800 mg/kg	rat rat rabbit
108-94-1	Cyclohexanone	LC50 Oral LD50	8000 ppm 1620 ul/kg	rat rat
108-88-3	Toluene	LC50 Oral LD50 Dermal LD50	49 gm/m ³ 636 mg/kg 14100 ul/kg	rat rat rabbit
108-10-1	Methyl isobutyl ketone	LC50 Oral LD50	100 gm/m ³ 2,080 mg/kg	rat rat
78-93-3	Methyl ethyl ketone	LC50 Oral LD50 Dermal LD50	32 gm/m ³ 4,050 mg/kg 6,480 mg/kg	mouse mouse rabbit

Carcinogenicity:

This product contains the following components which in their pure form have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
1333-86-4	Carbon black	no	2B	no
108-88-3	Toluene	no	3	no

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

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2A - The component is probably carcinogenic to humans.

2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

1 - The component is known to be a human carcinogen.

2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

Additional Health Hazard Information:

Methyl alcohol 67-56-1 May cause optic nerve damage and blindness, with CNS effects, narcosis, acidosis.

12. ECOLOGICAL INFORMATION

Persistence and degradability : No data available.

Environmental Toxicity : Adverse ecological impact is not known or expected under normal use.

Bioaccumulation Potential : No data available.

Additional advice : No data available.

13. DISPOSAL CONSIDERATIONS

Product : Dispose of properly. Do not dump into sewers, on the ground, or into any body of water. Where possible, recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

14. TRANSPORT INFORMATION

U.S. DOT Classification

Proper Shipping Name: Flammable liquids, n.o.s.

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Technical Name: Methyl ethyl ketone, Toluene
Hazard Class / Division 3
UN Number UN1993
Packing Group II
Label Required 3
Hazardous Substance Dimethylformamide
Reportable quantity: 2,157 LB

ICAO/IATA Refer to specific regulation.

IMO / IMDG Refer to specific regulation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	% in Product	RQ for component	RQ for Mixture/Product
Dimethylformamide	68-12-2	4.6368	100 lbs	2,157 LB

California Proposition 65 : WARNING! This product contains a chemical known to the State of California to cause cancer., WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

SARA Title III Section 302 Extremely Hazardous Substance

Not applicable

SARA Title III Section 313 Toxic Chemicals:

Chemical Name	CAS-No.	Weight %
METHANOL	67-56-1	05.78
TOLUENE	108-88-3	13.49
METHYL ISOBUTYL KETONE	108-10-1	13.49
METHYL ETHYL KETONE	78-93-3	34.06
N,N-DIMETHYLFORMAMIDE	68-12-2	04.63

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Canadian Regulations:

WHMIS Classification : D1B, B2 D1B

WHMIS Ingredient Disclosure List

CAS-No.
67-64-1
67-56-1
108-88-3
108-10-1
108-94-1
78-93-3
68-12-2

DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

Australia AICS : Listed.

China IECS : Listed.

Europe EINECS : Not determined.

Japan ENCS : Not determined.

Korea KECI : Not determined.

Philippines PICCS : Listed.

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.