# MATERIAL SAFETY DATA SHEET NYLON HM DEWALT YELLOW

Version Number 1.1 Revision Date 10/26/2006

Product Use

Page 1 of 9 Print Date 11/25/2011

#### **1. PRODUCT AND COMPANY IDENTIFICATION**

#### POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone number	:	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	NYLON HM DEWALT YELLOW
Product code	:	CC10091683
Chemical Name	:	Mixture
CAS-No.	:	Mixture

: Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
1,6-Hexanediamine,	70624-18-9	1 - 5
N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-,		
polymer with 2,4,6-trichloro-1,3,5-triazine,		
reaction products		
Decanedioic acid,	52829-07-9	1 - 5
bis(2,2,6,6-tetramethyl-4-piperidinyl) ester		
Cadmium selenide (CdSe)	1306-24-7	0.1 - 1
Barium sulfate	7727-43-7	1 - 5
Zinc stearate	557-05-1	1 - 5
Cadmium sulfide	1306-23-6	5 - 10

#### **3. HAZARDS IDENTIFICATION**

#### **EMERGENCY OVERVIEW**

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

#### POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Ingestion, Skin contact

#### Acute exposure

Inhalation	: Resin particles, like other inert materials, can be mechanically irritating.
Ingestion	: May be harmful if swallowed.

PolyOne.

# MATERIAL SAFETY DATA SHEET NYLON HM DEWALT YELLOW

ion Number 1.1 sion Date 10/26/2006	Page 2 Print Date 11/25/2			
Eyes	: Resin particles, like other inert materials, are mechanically irritating to eyes.			
Skin	: Experience shows no unusual dermatitis hazard from routine handling			
Chronic exposure	: Refer to Section 11 for Toxicological Information.			
Medical Conditions Aggravated by Exposure:	: None known.			
	4. FIRST AID MEASURES			
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases o doubt seek medical advice.			
Ingestion	: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.			
Eyes	: Rinse immediately with plenty of water, also under the eyelids, 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 see medical attention.			
	5. FIRE-FIGHTING MEASURES			
Flash point : Not applicable				
Flammable Limits				
Upper explosion limit	: Not applicable			
Lower explosion limit	: Not applicable			
Autoignition temperature	: Not applicable			
Suitable extinguishing media	: Carbon dioxide blanket, water spray, dry powder, foamnone.			
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	<ul> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.</li> </ul>			
	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.			
Methods for cleaning up	: Clean up promptly by sweeping or vacuum. Package all material in			

POLYONE CORPORATION

<u>PolyOne</u>

# MATERIAL SAFETY DATA SHEET NYLON HM DEWALT YELLOW

Version Number 1.1 Revision Date 10/26/2006 Page 3 of 9 Print Date 11/25/2011

plastic, cardboard or metal containers for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

### 7. HANDLING AND STORAGE

Handling	: Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.

Storage: Keep containers dry and tightly closed to avoid moisture absorption<br/>and contamination. Keep in a dry, cool place.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection	:	No personal respiratory protective equipment normally required.
Eye/Face Protection	:	Safety glasses with side-shields.
Hand protection	:	Protective gloves.
Skin and body protection	:	Long sleeved clothing.
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.
Engineering measures	:	Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.
Exposure limit(s)		

<u>PolyOne</u>

# MATERIAL SAFETY DATA SHEET NYLON HM DEWALT YELLOW

Version Number 1.1 Revision Date 10/26/2006 Page 4 of 9 Print Date 11/25/2011

Components	Value	Exposure time	Exposure type	List:
Barium sulfate	10 mg/m3	Time Weighted Average (TWA):	Total dust.	ACGIH
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
Cadmium selenide	0.005	Time Weighted Average	as Cd	OSHA
(CdSe)	mg/m3	(TWA):		
	0.0025	OSHA Action level:	as Cd	OSHA
	mg/m3			
	0.2 mg/m3	PEL:	as Se	OSHA Z1
	0.01	Time Weighted Average	as Cd	ACGIH
	mg/m3	(TWA):		
	0.2 mg/m3	Time Weighted Average (TWA):	as Se	ACGIH
	0.002	Time Weighted Average	Respirable fraction. as	ACGIH
	mg/m3	(TWA):	Cd	
	0.002	Time Weighted Average	Respirable dust. as Cd	MX OEL
	mg/m3	(TWA):		
	0.01	Time Weighted Average	Total dust. as Cd	MX OEL
	mg/m3	(TWA):		
Cadmium sulfide	0.005	Time Weighted Average	as Cd	OSHA
	mg/m3	(TWA):		
	0.0025	OSHA Action level:	as Cd	OSHA
	mg/m3			
	0.002	Time Weighted Average	Respirable fraction. as	ACGIH
	mg/m3	(TWA):	Cd	
	0.01	Time Weighted Average	as Cd	ACGIH
	mg/m3	(TWA):		
	0.002	Time Weighted Average	Respirable dust. as Cd	MX OEL
	mg/m3	(TWA):		
	0.01	Time Weighted Average	Total dust. as Cd	MX OEL
	mg/m3	(TWA):		
Zinc stearate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):	as stearates	ACGIH
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odor Melting point/range Boiling Point: Water solubility
- Solid
  Pellets
  YELLOW
  Very faint
  Not determined
  Not applicable
  Insoluble

Evaporation rate Specific Gravity: Bulk density Vapor pressure Vapour density pH Not applicable
Not determined
Not established
Not applicable
Not applicable
Not applicable

PolvOne.

### **MATERIAL SAFETY DATA SHEET** NYLON HM DEWALT YELLOW

Version Number 1.1 Revision Date 10/26/2006

\_

Page 5 of 9 Print Date 11/25/2011

	10	. STABILITY AND REACTIVITY	1
Stability	:	Stable.	
Hazardous Polymerization	•	Will not occur.	
Conditions to avoid	:	Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.	
Incompatible Materials	•	Incompatible with strong acids and oxidizing agents.	
Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), 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.

<u>Toxicity Overview</u> This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
70624-18-9	1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetrameth yl-4-piperidinyl)-,polymer with 2,4,6-trichloro-1,3,5-triazi ne, reaction products	Irritant	Eyes, Skin, Respiratory system.
52829-07-9	Decanedioic acid, bis(2,2,6,6-tetramethyl-4-p iperidinyl) ester	Irritant	Eyes.
1306-24-7	Cadmium selenide (CdSe)	Highly Toxic	Refer to LC50 / LD50 Data on MSDS
		Systemic effects	Liver, central nervous system (CNS), Kidney.
7727-43-7	Barium sulfate	Irritant	Respiratory system.
		Systemic effects	Eyes, Respiratory system.
557-05-1	Zinc stearate	Systemic effects	Eyes, Skin, Respiratory system.
1306-23-6	Cadmium sulfide	Highly Toxic	Refer to LC50 / LD50 Data on MSDS

#### 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
0110 110.	Chemiear r taine	noute	, and	Species

# MATERIAL SAFETY DATA SHEET NYLON HM DEWALT YELLOW

Version Number 1.1 Revision Date 10/26/2006

Page 6 of 9 Print Date 11/25/2011

70624-18-9	1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetrameth yl-4-piperidinyl)-,polymer with 2,4,6-trichloro-1,3,5-triazi ne, reaction products	Oral LD50 Dermal LD50	> 2,000 mg/kg > 3,000 mg/kg	rat rat
52829-07-9	Decanedioic acid, bis(2,2,6,6-tetramethyl-4-p iperidinyl) ester	Oral LD50 Dermal LD50	3,700 mg/kg > 3,100 mg/kg	rat rabbit
557-05-1	Zinc stearate	Oral LD50	> 10 gm/kg	rat
1306-23-6	Cadmium sulfide	Oral LD50	7,080 mg/kg	rat

Carcinogenicity

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
1306-24-7	Cadmium selenide (CdSe)	yes	1	1
1306-23-6	Cadmium sulfide	yes	1	no

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

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:

Cadmium selenide (CdSe) 1306-24-7 Can produce rapid and sometimes fatal pulmonary edema. Chronic absorption leads to liver and kidney damage.

#### Additional Health Hazard Information:

Cadmium sulfide 1306-23-6 Can produce rapid and sometimes fatal pulmonary edema. Chronic absorption leads to liver and kidney damage.

#### **12. ECOLOGICAL INFORMATION**

Persistence and degradability	:	Not readily biodegradable.
Environmental Toxicity	:	Chemicals are not readily available as they are bound within the polymer matrix.
Bioaccumulation Potential	:	Chemicals are not readily available as they are bound within the polymer matrix.
Additional advice	:	No data available

#### **13. DISPOSAL CONSIDERATIONS**

PolyOne.

# MATERIAL SAFETY DATA SHEET NYLON HM DEWALT YELLOW

sion Number 1.1 ision Date 10/26/2006	Page 7 Print Date 11/25/2
Product	: Like most thermoplastic plastics the product can be recycled. 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	: Not regulated for transportation.
ICAO/IATA (air)	: Refer to specific regulation.
IMO / IMDG (maritime)	: 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 Hazardo	us Substances (40 CFR 302)
Not applicable	
California Proposition 65	<ul> <li>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.</li> </ul>
SARA Title III Section 302 F	Extremely Hazardous Substance
Unless specific chemicals are	identified under this section, this product is Not Applicable under this regula
SARA Title III Section 313 7	`oxic Chemicals:

olvUn<u>e</u>

# MATERIAL SAFETY DATA SHEET NYLON HM DEWALT YELLOW

Version Number 1.1 Revision Date 10/26/2006 Page 8 of 9 Print Date 11/25/2011

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Chemical Name	CAS-No.	Weight %
CADMIUM COMPOUNDSSELENIUM COMPOUNDS	1306-24-7	0.10 - 1.00
CADMIUM COMPOUNDS	1306-23-6	5.00 - 10.00
ZINC COMPOUNDS	557-05-1	1.00 - 5.00
ZINC COMPOUNDS	1314-98-3	5.00 - 10.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)	
---	--

Chemical Name	CAS-No.	Weight %	NPRI ID#
Cadmium selenide (CdSe)	1306-24-7	0.10 - 1.00	243
		0.10 - 1.00	210
Cadmium sulfide	1306-23-6	5.00 - 10.00	233
Zinc stearate	557-05-1	1.00 - 5.00	231
Zinc sulfide	1314-98-3	5.00 - 10.00	231

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
1306-23-6
557-05-1

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	:	Listed
Japan ENCS	:	Not determined
Korea KECI	:	Not determined
Philippines PICCS	:	Not determined

:

#### **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

PolyOne.

# MATERIAL SAFETY DATA SHEET NYLON HM DEWALT YELLOW

Version Number 1.1 Revision Date 10/26/2006 Page 9 of 9 Print Date 11/25/2011

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.