



Associated Lead Inc.

MATERIAL SAFETY DATA SHEET

MANUFACTURER'S NAME ASSOCIATED LEAD, INC.		REGULATORY AFFAIRS DEPARTMENT		DATE 4.14.80
STREET ADDRESS 2545 ARAMINGO AVENUE			CITY, STATE, ZIP PHILADELPHIA, PA. 19125	
PRODUCT CLASS Stabilizer-Pigment	MANUFACTURER'S CODE I.D. 34006	TRADE NAME Dyphos XL	EMERGENCY TELEPHONE NO. 215-427-4681	

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT BY WEIGHT	TLV		LEL %	VAPOR PRESSURE mm Hg @ 68°F
		PPM	mg/m ³		
Dibasic Lead Phosphite	90.0	-	0.2 ⁽¹⁾ (Lead)	-	-
(1) OSHA Standard, 29 CFR 1910.1000 Table Z-2					

SECTION III - PHYSICAL DATA

BOILING RANGE N/A				
VAPOR DENSITY	EVAPORATION RATE	% VOLATILE BY VOLUME	WEIGHT PER GALLON	SPECIFIC GRAVITY
☐ HEAVIER ☒ N/A ☐ LIGHTER THAN AIR	☐ FASTER ☒ N/A ☐ SLOWER THAN ETHER	-	-	4.5

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Flammable Solid	FLASH POINT N/A	LEL Unknown
EXTINGUISHING MEDIA ☒ WATER-FOG ☒ FOAM ☐ OTHER ☐ CARBON DIOXIDE ☒ DRY CHEMICAL		
UNUSUAL FIRE AND EXPLOSION HAZARDS Isolate from heat, open flames, and all sources of sparks including static electricity. Use non-metallic scoops. Equipment and hoppers must be properly grounded.		
SPECIAL FIRE FIGHTING PROCEDURES Isolate and scatter material to cool. Cover with sand.		

SECTION V - REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE	CONDITIONS TO AVOID Keep dust accumulations to a minimum.
HAZARDOUS DECOMPOSITION PRODUCTS None.	
HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR	
CONDITIONS TO AVOID Temperature greater than 400°F.	
N/A - NOT APPLICABLE	

DO 086314
CONFIDENTIAL

SECTION VI - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

0.2 mg/m³ based on lead.

EFFECTS OF OVEREXPOSURE

Depending on individual susceptibility and degree of over exposure, effects are generally seen only after long-term exposure, although short-term high level, exposure may also be poisonous. Symptoms may include tiredness, decreased appetite, metallic taste, and stomach cramps resembling colic (intermittent rather than continuous pain). More severe symptoms could include true muscle weakness, intense headaches and on rare occasions convulsions and even more rarely death. Kidney may occur without symptoms. Lead crosses the placenta. Fetal exposure should be kept within guidelines of the Communicable Disease Center of the U.S. Department HEW-30ug/100g of blood

EMERGENCY AND FIRST AID PROCEDURES

Abnormal Ingestion-Induce vomiting by means of finger-in-throat, salt water or other means. Call a physician at once.
External- The product may be removed by washing with soap and water.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Wear gloves, goggles and respirator. Clean area returning all material possible to container. Do not use compressed air for cleaning floors and other surfaces. These surfaces should be cleaned by vacuuming, taking care that the material is not returned to the work area.

WASTE DISPOSAL METHOD

Keep waste rags in labeled safety container-do not incinerate. Disposal must be in accordance with state, local or federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

NIOSH approved respiratory protection must be used in accordance with existing standards. Medical Removal Protection (MRP) and biological surveillance are necessary. Respirator must be worn if TLV is exceeded. "See 29CFR 1910.1025(k) 1910.134;1910.1000 Table Z-2.

VENTILATION

All work areas where lead compounds are used must be ventilated to keep TLV below acceptable limits. See 29 CFR 1910.94.

PROTECTIVE GLOVES

yes

EYE PROTECTION

yes-goggles

OTHER PROTECTIVE EQUIPMENT

Use respirator. Use clean work clothes. Change work clothes daily.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Take every precaution to avoid contamination of the atmosphere. *Special care should be given to removing lead from hair and under fingernails. *Working or contaminated clothes and shoes must not be worn home. *Before entering eating areas, work clothing should be removed or loose dust vacuumed off clothing surface. *Take every precaution to avoid ingestion and inhalation. *Use gloves and avoid spilling on hands, face, or body. *Do not smoke, eat, or apply cosmetics in work area. *Wash hands and face thoroughly before entering into eating areas. While the information and recommendations set forth are believed to be accurate as of the date hereof, Associated Lead Inc. MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE OR ACTION BASED THEREON. Because of the nature of the product, user assumes all risk with respect to it.

DO 086315
CONFIDENTIAL



Anzon Inc.

MATERIAL SAFETY DATA SHEET

SECTION I

MANUFACTURER'S NAME ANZON INC. REGULATORY AFFAIRS DEPARTMENT		DATE 12-27-85
STREET ADDRESS 2545 ARAMINGO AVENUE		CITY, STATE, ZIP PHILADELPHIA, PA 19125
PRODUCT CLASS Stabilizer-Pigment	MANUFACTURER'S CODE I.D. 34032	TRADE NAME Dyphos Envirostab
		EMERGENCY TELEPHONE NO. 215-427-3000

After Working Hours, Emergencies Number: (Chemtrec - 800-424-9300)

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	TLV		LEL%	VAPOR PRESSURE mm Hg @ 68°F
	PPM	mg/m ³		
Dibasic Lead Phosphite (1) OSHA Standard, 29 CFR 1910.1025	—	0.05(1)	N/A	N/A

SECTION III - PHYSICAL DATA

BOILING RANGE N/A				
VAPOR DENSITY	EVAPORATION RATE	% VOLATILE BY VOLUME	WEIGHT PER GALLON	SPECIFIC GRAVITY
☐ HEAVIER N/A ☐ LIGHTER THAN AIR	☐ FASTER N/A ☐ SLOWER THAN ETHER	N/A	N/A	3.9

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Flammable Solid	FLASH POINT N/A	LEL Unknown
EXTINGUISHING MEDIA ☒ WATER-FOG ☒ FOAM ☐ OTHER ☒ CARBON DIOXIDE ☒ DRY CHEMICAL		
UNUSUAL FIRE AND EXPLOSION HAZARDS Isolate from heat, open flames and all sources of sparks including static electricity. Use non-metallic scoops. Equipment and hoppers must be properly grounded.		
SPECIAL FIRE FIGHTING PROCEDURES Isolate and scatter material to cool. Cover with sand.		

SECTION V - REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE	CONDITIONS TO AVOID Keep dust accumulation to a minimum.
UNSTABILITY (SERIALS TO AVOID) None.	
HAZARDOUS DECOMPOSITION PRODUCTS On ignition, oxides of lead may be volatilized.	
HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR	CONDITIONS TO AVOID Temperatures greater than 400°F.

N/A—NOT APPLICABLE

DO 086316
CONFIDENTIAL

SECTION VI-HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

0.050mg/m³

EFFECTS OF OVEREXPOSURE

Depending on individual susceptibility and degree of overexposure, effects are generally seen only after long-term exposure, although short-term high-level exposure may also be poisonous. Symptoms may include tiredness, decreased appetite, metallic taste and stomach cramps resembling colic (intermittent rather than continuous pain). More severe symptoms could include true muscle weakness, intense headaches and on rare occasions convulsions and even more rarely death. Kidney damage may occur without symptoms. Lead crosses the placenta. Fetal exposure should be kept within guidelines of the Communicable Disease Center of the U.S. Department HEW-30ug/100g of blood.

EMERGENCY AND FIRST AID PROCEDURES

Abnormal Ingestion - Induce vomiting. Use syrup of ipecac-one ounce followed by eight ounces of water. Call a physician at once.

External - The product may be removed by washing with soap and water.

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Wear gloves, goggles and respirator. Clean area returning all material possible to container. Do not use compressed air for cleaning floors and other surfaces. These surfaces should be cleaned by vacuuming, taking care that the material is not returned to the work area.

WASTE DISPOSAL METHOD

Keep waste rags in a labeled safety container-do not incinerate. Disposal must be in accordance with state, local or federal regulations.

SECTION VIII-SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

NIOSH approved respiratory protection must be used in accordance with existing standards.

VENTILATION

All work areas where lead compounds are used must be ventilated to keep TLV below acceptable limits. See 29CFR 1910.94.

PROTECTIVE GLOVES

Yes

EYE PROTECTION

Yes - goggles

OTHER PROTECTIVE EQUIPMENT

Use respirator. Use clean workclothes. Change workclothes daily.

DO 086317
CONFIDENTIAL

SECTION IX-SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Take every precaution to avoid contamination of the atmosphere. *Special care should be given to removing lead from hair and under fingernails. *Working or contaminated clothes and shoes must not be worn home. *Before entering eating areas, work clothing should be removed or loose dust vacuumed off clothing surface. *Take every precaution to avoid ingestion and inhalation. *Use gloves and avoid spilling on hands, face or body. *Do not smoke, eat or apply cosmetics in work area. *Wash hands and face thoroughly before entering into eating areas. While the information and recommendations set forth are believed to be accurate as of the date hereof, Anzon Inc. MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE OR ACTION BASED THEREON. Because of the nature of the product, user assumes all risk with respect to it.

MATERIAL SAFETY DATA SHEET

(Approved by U.S. Department of Labor "Essentially Similar" to Form LSS-000-4)

NPVLA 6-70

Section I

MANUFACTURER'S NAME

N L Industries, Inc.; Pigments and Chemicals Division

STREET ADDRESS

Post office Box 420

CITY, STATE AND ZIP CODE

Hightstown, New Jersey 08520

EMERGENCY TELEPHONE NO.

609/448-3200 EXT. 473 - Manager, Quality Control

CHEMICAL NAME AND SYNONYMS

Dibasic Lead Phosphite

TRADE NAME

Dyphos

CHEMICAL FAMILY

Lead -Chemical

FORMULA

Section II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS

PIGMENTS	%	TLV (Units)	SOLVENTS	%	TLV (Units)
CATALYST			ADDITIVES		
VEHICLE			OTHERS		

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES

	%	TLV (Units)
Lead, Pb	84	0.2mg/t
Phosphorous, P	4.0	

Section III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O=1)	6.1
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (=1)	N/A
SOLUBILITY IN WATER	Slight		
APPEARANCE AND ODOR	Fluffy White Crystalline Powder		

DO 086318
CONFIDENTIAL

Section IV - FIRE AND EXPLOSION HAZARD DATA

LASH POINT (METHOD USED)	N/A	FLAMMABLE LIMITS	N/A	LeI	Uel
EXT. FIGHTING MEDIA	There are no suitable extinguishing agents				
SPECIAL FIRE FIGHTING PROCEDURES	Isolate, scatter to cool and use sand to contain smoldering material.				
UNUSUAL FIRE AND EXPLOSION HAZARDS	Product will auto ignite and smolder when exposed to temperatures > 400°F.				

Reference Section II

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Prolonged excessive absorption of inorganic lead by ingestion or inhalation of dust and fume is characterized by abdominal pain (lead colic) metallic taste in mouth, loss of weight, pains in muscles and muscular weakness. The similarity of these symptoms with those of other illnesses require that excessive absorption of lead be verified by medical examination and analysis of biological specimens.

EMERGENCY AND FIRST AID PROCEDURES Consult a physician if you have symptoms of illness. Abnormal Ingestion
Call a physician at once. As first aid, induce vomiting, give milk and magnesium sulfate (Epsom Salt). External: Normal work day accumulations can be effectively cleansed with soap and water.
Eyes: Use first aid procedure for dust.

Section VI — REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Temperatures > 400°F.
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS At high temperatures toxic fumes are emitted			
HAZARDOUS POLYMERIZATION	MAY OCCUR	X	CONDITIONS TO AVOID
	WILL NOT OCCUR		Auto ignites at 400°F.

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED		Sweep carefully, wear gloves, goggles, and respirator. Keep spark or flame sources away.
WASTE DISPOSAL METHOD		Landfill or smelter. Disposal must be done in accordance with local, state, and federal regulations.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Dust and/or fume respirator (Bureau of Mines Approved)		
VENTILATION	LOCAL EXHAUST	Ventilation provided as required by job condition to keep TLV listed in Section II below acceptable limits.
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES	yes	EYE PROTECTION goggles
OTHER PROTECTIVE EQUIPMENT	Change of work clothes	

DO 086319
CONFIDENTIAL

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING		Handle carefully to avoid dusting. Personnel must wear dust respirator, gloves and goggles.
OTHER PRECAUTIONS		Use non-metallic scoops. Equipment and hoppers used for Dyphos must be grounded.

July 18, 1973