# POLYFLAKE LLC

A Division of Advanced Corrosion Repairs B.C. Limited

B141277

• CORROSION & ABRASION RESISTANT COATING SYSTEMS •
• CORROSION CONTROL • CORROSION REPAIRS •

# POLYFLAKE® 110 ABT / 220 AS

# RESIN SOLUTION

# MATERIAL SAFETY DATA SHEETS

Polyflake LLC, 3754 NW 80th Street, Miami, FL 33147. PH: +1-786 269 2365; email:info@polyflake.com
web: www.polyflake.com

# POLYFLAKE® 110 ABT / 220 AS

# RESIN SOLUTION

## MATERIAL SAFETY DATA SHEETS

**TABLE OF CONTENTS:** **Page #**


1. IN CASE OF EMERGENCY AND COMPANY INFORMATION 3
2. COMPOSITION/INFORMATION ON INGREDIENTS 3
3. HAZARDS IDENTIFICATION 3
4. FIRST AID 4
5. FIRE FIGHTING MEASURES 5
6. ACCIDENTIAL RELEASE MEASURES 6
7. HANDLING AND STORAGE 6
8. EXPOSURE CONTROLS / PERSONAL PROTECTION 6
9. PHYSICAL AND CHEMICAL PROPERTIES 7
10. STABILITY AND REACTIVITY 7
11. TOXICOLOGICAL INFORMATION 8
12. ECOLOGICAL INFORMATION 8
13. DISPOSAL CONSIDERATIONS 8
14. TRANSPORT INFORMATION 9
15. REGULATORY INFORMATION 9

**Product Code: Polyflake® 110 ABT / 220 AS**
**Resin Solution**

Effective Date: 03/18/96 Date Printed: 10/11/96 MSD: 003660

## 1. IN CASE OF EMERGENCY AND COMPANY INFORMATION:

Please direct any questions or comments to POLYFLAKE LLC at:

POLYFLAKE LLC
3754 NW 80th Street
Miami, FL 33147

Phone: (786) 269 2365

Internet address: info@polyflake.com

Prepared for use in Canada by the product Quality, Compliance and Safety Department.

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| CHEMICAL NAME | CAS # | CONCENTRATION |
|---|---|---|
| Vinyl ester resin | 036425-15-7 | Balance |
| Styrene monomer | 000100-42-5 | 40-60% |
| Treated amorphous silica | 067762-90-7 | 1-3% |

* For specific percentage of styrene monomer found in this product see Section 15.

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

* Blue white viscous liquid. Pungent styrene odor. Flammable.
* Reactive. Causes eye irritation. May be harmful if inhaled.
* May cause anesthetic effects.

### POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data)

**EYE:** May cause moderate irritation with corneal injury. Vapors may irritate eyes. May cause lachrymation (tears).

**SKIN:** Prolonged or repeated exposure may cause skin irritation. Material may stick to skin causing irritation upon removal. A single prolonged exposure is not likely to result in the material being absorbed in harmful amounts.

## 3. HAZARDS IDENTIFICATION (Continued):

**INGESTION:** Single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. If aspirated (liquid enters the lung) may be rapidly absorbed through the lungs and result in injury to other body systems.

**INHALATION:** Excessive vapor concentrations are attainable and could be hazardous on single exposure. Signs and symptoms of excessive exposure may be anesthetic or narcotic effects. Excessive exposure may cause irritation to upper respiratory tract.

**SYSTEMIC (other target organ) & OTHER EFFECTS:** Repeated excessive exposures to high amounts may cause central nervous system, liver, kidney effects and respiratory or eye irritation. Repeated excessive exposures to smaller amounts may cause central nervous system effects and respiratory or eye irritation. Styrene is reported to have caused hearing loss in laboratory animals upon exposure to high concentrations (sixteen times the TLV and higher); however, the relevance of this to humans is unknown. Repeated excessive exposure to dust of amorphous silica may cause reversible lung effects. However, since this product will not be encountered as a dust, the amorphous silica does not present a hazard. Some studies in humans allege that repeated exposure to styrene may result in minor, subclinical decreases in the ability to discriminate between colors.

**CANCER INFORMATION:** This mixture contains a component which is listed as potential carcinogens for hazard communication purposes under OSHA Standard 29 CFR 1910.1200. Components listed by IARC: styrene. Possible carcinogen. Epidemiology studies of workers exposed to styrene do not provide an adequate basis to conclude that styrene is carcinogenic to humans.

**TERATOLOGY:** In laboratory animals, styrene did not produce birth defects or any other effects on the fetus even at exposure concentrations having an adverse effect on the mother.

**REPRODUCTIVE EFFECTS:** Contains component which did not interfere with reproduction in animal studies (styrene).

## 4. FIRST AID:

**EYES:** Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

**SKIN:** Wash off in flowing water or shower.

**INGESTION:** Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

## 4. FIRST AID (Continued):

**NOTE TO PHYSICIAN:** Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

## 5. FIRE FIGHTING MEASURES:

**FLAMMABLE PROPERTIES:**

FLASH POINT: 74-84F
METHOD USED: ASTM-D93, PMCC
AUTOIGNITION TEMPERATURE: 914F (490C) based on styrene

**FLAMMABILITY LIMITS:**

LFL: 0.9% (based on styrene)
UFL: 6.8% (based on styrene)

**HAZARDOUS COMBUSTION PRODUCTS:** Under fire conditions polymers decompose. The smoke may contain polymer fragments of varying compositions in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to carbon dioxide, carbon monoxide. Hazardous combustion products may include styrene.

**OTHER FLAMMABILITY INFORMATION:** Dense smoke is produced when product burns. Violent steam generation or eruption may occur upon application of direct water stream. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Flammable mixtures may exist within the vapor space of containers at room temperature. Flammable concentrations of vapor can accumulate at temperatures above 74F. Spills of these organic liquids on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

**EXTINGUISHING MEDIA:** Water fog or fine spray, carbon dioxide, dry chemical, foam. Water fog, applied gently may be used as a blanket for fire extinguishment. General purpose synthetic foams (including AFFF type) or protein foams are preferred if available. Alcohol resistant foams (ATC type) may function. Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

**MEDIA TO BE AVOIDED:** Do not use direct water stream.

**FIRE FIGHTING INSTRUCTIONS:** Keep people away. Isolate fire area and deny unnecessary entry. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Eliminate ignition sources. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Do not use direct water stream. May spread fire. Water may not be effective in extinguishing fire. Move container from fire area if this is possible without hazard.

## 5. FIRE FIGHTING MEASURES (Continued):

**PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:** Wear positive-pressure, self-contained breathing apparatus (SCBA) and full protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## 6. ACCIDENTIAL RELEASE MEASURES: (See Section 15 for Regulatory Information)

**PROTECT PEOPLE:** Do not breathe vapors. Vapor explosion hazard, keep out of sewers. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. For large spills, warn public of downwind explosion hazard. Check area with explosion meter before reentering area. Ground and bond all containers and handling equipment.

**PROTECT ENVIRONMENT:** For large spills, evacuate upwind of spills and contain with dike.

**CLEANUP:** Pump with explosion-proof equipment. If available use foam to smother and suppress. Remove residual with hot soapy water. Residual can be removed with solvent. Solvents are not recommended for cleanup unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent MSDS for handling information and exposure guidelines.

## 7. HANDLING AND STORAGE:

**HANDLING:** Containers, even those that have been emptied, can contain vapors. Do not cut, drill, weld or perform similar operations on or near empty containers. No smoking, open flames or sources of ignition in handling or storage area. Never use air pressure for transferring product. Electrically ground all equipment.

**STORAGE:** Store below 75F. Avoid storage in direct sunlight. Use of non-sparking or explosion proof equipment may be necessary depending upon the type of operation. Minimize sources of ignition, such as static buildup, heat, spark or flame. Keep containers tightly closed when not in use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation to control airborne concentrations below the exposure guideline. Use only with adequate ventilation.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYE/FACE PROTECTION:** Use chemical goggles. If vapor exposure causes eye irritation, use a full-face respirator.

**SKIN PROTECTION:** Wear clean, long-sleeved, body-covering clothing. Use gloves impervious to this material.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued):

**RESPIRATORY PROTECTION:** Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air-supply. In confined or poorly ventilated areas, use an approved positive-pressure supplied-air respirator.

**EXPOSURE GUIDELINE(S):** Styrene, monomer: ACGIH TLV and OSHA PEL are 50 ppm TWA, 100 ppm STEL. Silica, amorphous: ACGIH TLV is 10 mg/m3, OSHA PEL is 6 mg/M3. PELs are in accord with those recommended by OSHA, as in the 1989 revision of PELs.

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

| | |
|---|---|
| APPEARANCE: | Blue white viscous liquid |
| ODOR: | Pungent styrene odor |
| VAPOR PRESSURE: | 7 mmHg @ 20C/68F (based on Styrene) |
| VAPOR DENSITY: | 3.6 (based on Styrene) |
| BOILING POINT: | >294F/146C (based on Styrene) |
| SOLUBILITY IN WATER: | Insoluble |
| SPECIFIC GRAVITY: | 1.025 - 1.075 |

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Unstable at elevated temperatures.

**CONDITIONS TO AVOID:** Do not store in direct sunlight and at temperatures above 120F/49C.

**INCOMPATIBILITY WITH OTHER MATERIALS:** Oxidizing material.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Refer to Section 5 for hazardous combustion products.

**HAZARDOUS POLYMERIZATION:** May occur. Avoid contact with metal salts such as ferric and aluminum chlorides, unintended contact with peroxides, and depletion of inhibitor levels. Avoid exposure to direct sunlight or temperature above 120F/49C.

**11. TOXICOLOGICAL INFORMATION:** (See Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1)

**SKIN:** The LD50 for skin absorption in rabbits is expected to be >2000 mg/kg.

**INGESTION:** Based on information for a similar material, the oral LD50 for rats is expected to be >4000 mg/kg.

**MUTAGENICITY (Effects on Genetic Material):** For styrene, in vitro mutagenicity studies were inconclusive. Animal mutagenicity studies were inconclusive.

**12. ECOLOGICAL INFORMATION:** (For detailed Ecological data, write or call the address or non-emergency number shown in Section 1).

**ENVIRONMENTAL FATE**

**MOVEMENT & PARTITIONING:** Based on information for styrene. Bioconcentration potential is low (BCF less than 100 or Log Kow less than 3). Potential for mobility in soil is low (Koc between 500 and 2000).

**DEGRADATION & TRANSFORMATION:** Based on information for styrene. Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD greater than 40%). Degradation is expected in the atmospheric environment within minutes to hours.

**ECOTOXICOLOGY:** Based on information for styrene. Material is moderately toxic to aquatic organisms on an acute basis (LC50 between 1 and 10 mg/l in most sensitive species).

**13. DISPOSAL CONSIDERATIONS:** (See Section 15 for Regulatory Information)

**DISPOSAL METHOD:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulation. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

HRIC HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SECTION 2 (Composition/Information On Ingredients).

FOR UNUSED OR UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted recycler, reclaimer, incinerator or other thermal destruction device.

## 14. TRANSPORT INFORMATION:

**DEPARTMENT OF TRANSPORTATION (D.O.T.):** For DOT regulatory information, if required, consult transportation regulations, product shipping papers or our representative.

**CANADIAN TDG INFORMATION:** For TDG regulatory information, if required, consult transportation regulations, product shipping papers or our representative

## 15. REGULATORY INFORMATION:

(Not meant to be all-inclusive – selected regulations represented).

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial and local laws and regulations. See other sections for health and safety information.

## CANADIAN REGULATIONS:

**WHMIS INFORMATION:** The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

D2A: possible, probable or known human carcinogen according to classifications by IARC or ACGIH

D2B: eye or skin irritant

Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

**CPR STATEMENT:** This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**HAZARDOUS PRODUCTS ACT INFORMATION:** This product contains the following ingredients which are Controlled Products and/or on the Ingredient Disclosure List (Canadian HPA Section 13 and 14):

| COMPONENTS | CAS# | AMOUNT (%w/w) |
|---|---|---|
| Styrene monomer | 000100-42-5 | 40-60% |

## U.S. REGULATIONS:

**SARA 313 INFORMATION:** This product contains the following substances 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:

| CHEMICAL NAME | CAS # | CONCENTRATION |
|---|---|---|
| Styrene monomer | 000100-42-5 | 40-60% |

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard
A fire hazard
A reactive hazard

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**OSHA HAZARD COMMUNICATION STANDARD:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

B14/277



# MULTIMODAL DANGEROUS GOODS FORM

This form may be used as a dangerous goods declaration as it meets the requirements of SOLAS 74, chapter VII, regulation 54; MARPOL 79/78, Annex III, regulation 4.

| | |
|---|---|
| 1 Shipper/<br>*POLYFLAKE LLC*<br>*c/o Dangerous Goods at MIA, Inc*<br>*3754 NW 80th STREET*<br>*MIAMI, FL 33147 - USA* | 2 Transport document number **IMO 0006**<br>3 Page 1 of 1 pages<br>4 Shipper's reference<br>5 Freight forwarder's reference |
| 6 Consignee | 7 Carrier (to be completed by the carrier) |
| *GRAHAM MFG BATAVIA N.Y.*<br>*PO BOX 719 20 FLORENCE AVE*<br>*BATAVIA, NY 14021-0719 USA* | **SHIPPER'S DECLARATION**<br>I hereby declare that the contents of this consignment are fully and accurately described below by the Proper Shipping Name, and are classified, packaged, marked and labeled/placarded and are in all respects in proper condition for transport according to the applicable international and national government regulations. |
| 8 This shipment is within the limitations prescribed for: (Delete non-applicable)<br>[redacted] [redacted] | 9 Additional handling information<br>**EMERGENCY DOMESTIC TEL. 1-800-535-5053**<br>**INFOTRAC #99759**<br>**INTL. CALL COLLET+ 1-352-323-3500**<br>**DANGEROUS GOODS AT MIA, INC.**<br>**PO BOX 521424**<br>**MIAMI, FL 33152 - USA**<br>**PH: 305-221-5007**<br>**e-mail dgatmia@aol.com** |
| 10 Vessel/flight No. and date<br>11 Port/place of loading **MIAMI, FL** | |
| 12 Port/place of discharge<br>13 Destination **SUPERIOR, WI** | |


| 14 Shipping marks | Number and kind of packages; description of goods | Gross mass (kg) | Net mass (kg) | Cube (m^3) |
|---|---|---|---|---|
| | **UN1263, PAINT, Class 3, PG III, FP 27 C cc, "LTD QTY" 20.00 lbs**<br>**1 FIBREBOARD BOX X 7.57 L Net**<br>**[ containing per inner packaging 2 STEEL DRUMS x 3.785 L Net ]**<br>**EmS F-E, S-E** | | | |

| 15 Container identification No./vehicle registration. No. | 16 Seal number(s) | 17 Container/vehicle & type | 18 Tare mass (kg) | 19 Total gross mass (including tare) (kg) |
|---|---|---|---|---|
| | | | | |

| | | |
|---|---|---|
| **CONTAINER/VEHICLE PACKING CERTIFICATE**<br>I hereby declare that the goods described above have been packed/loaded into the container/vehicle identified above in accordance with the applicable provisions.+<br>**MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING** | 21 RECEIVING ORGANIZATION RECEIPT<br>Received the above number of packages/containers/trailers in apparent good order and condition, unless stated hereon: RECEIVING ORGANIZATION REMARKS: | |
| 20 Name of company **SEABOARD MARINE** | Haulier's name | 22 Name of company (OF SHIPPER PREPARING THIS NOTE)<br>**DANGEROUS GOODS AT MIA, INC.** |
| Name/status of declarant | Vehicle reg. no. | Name/status of declarant<br>**IVAN NARANJO /CONSULTANT** |
| Place and date **MIAMI, FL** | Signature and date | Place and date<br>**MIAMI, FL 03/14/2014** |
| Signature of declarant | DRIVER'S SIGNATURE | Signature of declarant |

DANGEROUS GOODS:
You must specify: Proper Shipping Name, hazard class, UN No., packing group, (where assigned) marine pollutant and observe the mandatory requirements under applicable national and international government regulations. For the purposes of the IMDG Code se 5.4.1.1

+ For the purposes of the IMDG Code, see 5.4.2