SHANDON INC DBA SHANDON LIPSHAW -- GILL 1 HAEMATOXYLIN-GILL 2 HAEMATOXYLIN-GILL 3 HAEMATOXYLIN -- 6550-01-087-9802

============ Product Identification =========================

Product ID:GILL 1 HAEMATOXYLIN-GILL 2 HAEMATOXYLIN-GILL 3 HAEMATOXYLIN

MSDS Date:12/02/1997

FSC:6550

NIIN:01-087-9802 Status Code:A

MSDS Number: CLLPZ === Responsible Party ===

Company Name: SHANDON INC DBA SHANDON LIPSHAW

Address:171 INDUSTRY DRIVE

City:PITTSBURGH

State:PA ZIP:15275 Country:US

Info Phone Num:412-

788-1133 INFO 800-245-6212

Emergency Phone Num:813-979-0626 CHEM-TEL Resp. Party Other MSDS Num:230029 REV. 2

CAGE:17602

=== Contractor Identification ===

Company Name: SHANDON INC DBA SHANDON LIPSHAW

Address:171 INDUSTRY DRIVE

Box:City:PITTSBURGH

State:PA ZIP:15275 Country:US

Phone:412-788-1133 INFO 800-245-6212

CAGE:17602

======= Composition/Information on Ingredients ========

Ingred Name: ETHYLENE GLYCOL

CAS:107-21-1

RTECS #:KW2975000 Minumum % Wt:20. Maxumum % Wt:25.

Other REC

Limits:10 MG/M3

ACGIH STEL:C127 MG/M3;C50 PPM

EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB

Ingred Name: ALUMINUM SULPHATE

CAS:10043-01-3 RTECS #:BD1700000 Minumum % Wt:1. Maxumum % Wt:10. EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

Ingred Name:HAEMATOXYLIN CAS:517-28-2 RTECS #:MH7875000 < Wt:1.

Ingred Name:SODIUM IODATE CAS:7681-55-2 RTECS #:NN1400000 & Lt; Wt:1.

Ingred Name: GLACIAL ACETIC ACID

CAS:64-19-7

RTECS #:AF1225000

< Wt:1.

OSHA PEL:25 MG/M3;10 PPM ACGIH TLV:25 MG/M3;10 PPM

ACGIH STEL:37 MG/M

3;15 PPM

EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

========= Hazards Identification ===============

LD50 LC50 Mixture:NO DATA PROVIDED BY RESPONSIBLE PARTY.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Health Hazards Acute and Chronic:ACUTE: EYES: IRRITATES THE EYES. SKIN: MAY GIVE IRRITATION WITH REDNESS & PAIN. INHALATION: INHALATION OF VAPORS MAY IRRITATE MUCOUS MEMBRANES & INDUCE COUGH. INGESTION: IRRITATION OF THE GASTROINTEST INAL TRACT. LONG T

ERM (CHRONIC):

PROLONGED OR FREQUENT EXPOSURE TO VAPORS MAY RESULT IN DAMAGE TO LIVER, KIDNEYS, BLOOD OR CENTRAL NERVOUS SYSTEM (BRAIN DAMAGE). HAEMATOXYLIN HAS SHOWN A CARCINOGENIC EFFECT IN EXPERIMENTAL ANIMALS. ALUMINUM SULPHATE HAS SHOWN MUTAGENIC & REPRODUCTIVE EFFECTS IN RATS & MICE

- Explanation of Carcinogenicity:HAEMATOXYLIN HAS SHOWN A CARCINOGENIC EFFECT IN EXPERIMENTAL ANIMALS
- Effects of Overexposure:ACUTE: EYES: IRRITATES THE EYES. SKIN: MAY GIVE IRRITATIO
- N WITH REDNESS & PAIN. INHALATION: INHALATION OF VAPORS
 MAY IRRITATE MUCOUS MEMBRANES & INDUCE COUGH. INGESTION: IRRITATION
 OF THE GASTROINTEST INAL TRACT. LONG TERM (CHRONIC): PROLONGED OR
 FREQUENT EXPOSURE TO VAPORS MAY RESULT IN DAMAGE TO LIVER, KIDNEYS,
 BLOOD OR CENTRAL NERVOUS SYSTEM (BRAIN DAMAGE). HAEMATOXYLIN HAS
 SHOWN A CARCINOGENIC EFFECT IN EXPERIMENTAL ANIMALS. ALUMINUM
 SULPHATE HAS SHOWN MUTAGENIC & REPRODUCTIVE EFFECTS IN RATS & MICE
 Medical Cond Aggravated
- by Exposure:NO DATA PROVIDED BY RESPONSIBLE PARTY.

| ======================================= | First Aid Measures | |
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|---|--------------------|--|

- First Aid:EYE: FLUSH WITH WATER OR PHYSIOLOGICAL SALT WATER FOR 15 MINS. REMEMBER TO REMOVE CONTACT LENSES. SKIN: REMOVE CONTAMINATED CLOTHING & WASH WITH WATER & SOAP. INHALATION: REMOVE TO FRESH AIR. KEEP AT REST. ADMINISTER OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. INGESTION: RINSE MOUTH & DRINK PLENTY WATER. KEEP UNDER SURVEILLANCE. GENERAL: I
- F ANY SYMPTOMS OCCUR: SEEK MEDICAL ADVICE. SHOW THIS SAFET Y DATA SHEET TO A PHYSICIAN OR EMERGENCY WARD.

========= Fire Fighting Measures ===============

- Extinguishing Media:USE CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM OR WATER FOG.
- Fire Fighting Procedures: WHEN EXTINGUISHING FIRES USE BREATHING APPARATUS WITH AN INDEPENDENT SOURCE OF AIR.
- Unusual Fire/Explosion Hazard: THE PRODUCT MAY FORM HAZARDOUS DECOMPOSITION PRODUCT SUCH AS IODINE, OXIDES OF CARBON,

| SULPHUR, SODIUM & ALUMINUM. REMOVE CONTAINERS IF POSSIBLE | | |
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| ======== Accidental Release Measures ========== | | |
| Spill Release Procedures:PROVIDE FOR SUFFICIENT VENTILATION/RESPIRATORY PROTECTION. DO NOT EMPTY INTO DRAINS. IF THE PRODUCT CONTAMINATES LAKES, RIVERS OR SEWAGES, INFORM APPROPRIATE AUTHORITIES IN ACCORDANCE WITH LOCAL REGUL ATIONS. ABSORB SPILLED LIQUID & PLACE SPILLAGE IN A PLASTIC CONTAINER. Neutralizing Agent:NO DATA PROVIDED BY RESPONSIBLE PAR TY. | | |
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| Handling and Storage Precautions:STORE AT ROOM TEMPERATURE. KEEP CONTAINER CLOSED WHEN NOT IN USE. DO NOT STORE IN DIRECT SUNLIGHT. Other Precautions:NO DATA PROVIDED BY RESPONSIBLE PARTY. | | |
| ====== Exposure Controls/Personal Protection ======== | | |
| Respiratory Protection:USE MASK WITH A GAS/PARTICLE FILTER: A2/P2 SL WHEN RISK OF INHALING VAPORS. Ventilation:PROVIDE ADEQUATE VENTILATION. Protective Gloves: USE GLOVES OF BUTYL RUBBER OR NEOPRENE Eye Protection:WEAR SAFETY GOGGLES. Other Protective Equipment:RUBBER APRON IS RECOMMENDED. SAFETY SHOWER SHOULD BE AVAILABLE IN LOCAL AREA. Work Hygienic Practices:AVOID BREATHING OF VAPORS & CONTACT WITH SKIN & EYES. Supplemental Safety and Health NO DATA PROVIDED BY RESPONSIBLE PARTY. | | |
| ========= Physical/Chemical Properties ========== | | |
| HCC:T6 Boiling Pt:B.P. Text:123.9 TO 133.9 DEG C Vapor Density:> 1 Spec Gravity:1.033-1.054 p | | |

| H:ACIDIC Solubility in Water:COMPLETE Appearance and Odor:DARK PURPLE-RED LIQUID, FAINT VINEGAR ODOR |
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| ====================================== |
| STRONG OXIDIZING AGENTS, ALKALIS OR ACIDS CAN ALTER THE STAINING CHARACTERISTICS OF THE SOLUTIONS. Stability Condition to Avoid:NO DATA PROVIDED BY RESPONSIBLE PARTY. Hazardous Decomposition Products:COMBUSTION MAY PRODUCE IODINE, OXIDES OF CARBON, SULPHUR, SODIUM & ALUMINUM Conditions to Avoid Polymerization:WILL NOT O |
| =========== Toxicological Information ============ |
| Toxicological Information:ACUTE TOXICITY: IRRITATES THE EYES. SKIN: MAY GIVE IRRITATION WITH REDNESS AND PAIN. INHALATION: INHALATION OF VAPORS MAY IRRITATE MUCOUS MEMBRANES AND INDUCE COUGH. INGESTION IRRITATION TO THE GASTR OINTESTINAL TRACR. LONG TERM TOXICITY; PROLONGED OR FREQUENT EXPOSURE TO VAPORS MAY RESULT IN DAMAGE TO LIVER, KIDNEYS, BLOOD OR CENTRAL NERVOUS SYSTEM (BRAIN DAMAGE). HAEMATO |
| YLIN HAS SHOWN A CARCINOG ENIC EFFECT IN EXPERIMENTAL ANIMALS. ALUMINIUM SULPHATE HAS SHOWN MUTAGENIC AND REPRODUCTIVE EFFECTS IN RATS AND MICE. |
| ========== Ecological Information ============ |
| Ecological:DO NOT EMPTY INTO WATERS OR DRAINS. ECO-TOXICOLOGIC DATA FOR ALUMINUM SULPHATE; DAPHNIA MAGNA: EC50=59.6 MG/L (ALUMINUM 48 HOURS, IMMOBILITY).TUBIFEX TUBIFEX;EC50=69.8MG/L (ALUMINUM 24 HOURS).EC50=55. 9 MG/L(ALUMINUM 48 HOURS).EC50=50.2 MG/L (ALUMINUM |
| 96 HOURS) |
| ======== Disposal Considerations =========== |
| Waste Disposal Methods:DISPOSAL SHOULD BE ACCORDING TO LOCAL, STATE OR NATIONAL LEGISLATION. DISPOSE OF THROUGH AUTHORITY FACILITIES OR PASS TO CHEMICAL DISPOSAL COMPANY |
| ======== MSDS Transport Information ========== |
| Transport Information:THIS PRODUCT IS NOT CONSIDERED HAZARDOUS ACCORDING TO ANY TRANSPORTATION REGULATIONS. |
| ========== Other Information ======= |

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