

SAFETY DATA SHEET

PRODUCT CODE: 2301

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Perma-Joint Sealant Part A
PRODUCT CODES: 2301

MANUFACTURER: The Garland Company, Inc.
STREET ADDRESS: 3800 East 91st. Street
CITY, STATE, ZIP: Cleveland, Ohio 44105

The Garland Company, Inc.
209 Carrier Drive
Toronto, Ontario M9W 5Y8



INFORMATION PHONE: 800-762-8225
EMERGENCY PHONE: Chemtrec 800-262-8200

PREPARED BY: Bill Belardo

DATE REVISED: 05-26-15

Chemical Name or Class: Epoxy/blocked isocyanate mixture

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: Serious eye damage/Eye irritation category 2A, Skin irritation category 2, skin sensitizer category 1, Toxic to reproduction category 2, Long term hazards to aquatic environment Category 2

GHS Label Elements and Precautionary Statements:

Label Elements: Exclamation Mark, Health Hazard, Aquatic Toxicity



Hazard Statements:

Warning: Causes serious eye irritation.

Warning: Causes skin irritation.

Warning: May cause an allergic skin reaction.

Warning: Suspected of damaging fertility of the unborn child.

Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102 Keep out of reach of children.

P103 Read label before use

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P272 Contaminated work clothing should not be allowed out of the workplace.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

Response

P302 + P352 IF ON SKIN: wash with plenty of soap and water.

P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 IF eye irritation persists: Get medical advice/attention.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P391 Collect spillage.

Storage:

P405 Store locked up

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

Other Non-classifiable potential hazards

Carcinogen category 2

HMIS HAZARD CLASSIFICATION

HEALTH: 1 **FLAMMABILITY:** 1 **REACTIVITY:** 0 **PERSONAL PROTECTIVE EQUIPMENT:** B

POTENTIAL HEALTH EFFECTS

EYES:

MAY CAUSE IRRITATION BUT NO CORNEAL INJURY IS LIKELY.

SKIN:

SAFETY DATA SHEET

PRODUCT CODE: 2301

MAY CAUSE IRRITATION OR ALLERGIC SKIN RESPONSE.

INGESTION:

THIS MATERIAL HAS A PROBABLE LOW ACUTE ORAL TOXICITY.

INHALATION:

NO GUIDE FOR CONTROL KNOWN, HOWEVER, EXPOSURE TO HEATED VAPORS CAN CAUSE IRRITATION TO THE NOSE, THROAT OR MUCOUS MEMBRANES..

HEALTH HAZARDS (ACUTE AND CHRONIC):

EPOXY RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATION OF VAPOR. EYES: INJURY IF UNLIKELY BUT STAIN FOR EVIDENCE OF CORNEAL INJURY.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

CARCINOGENICITY

OSHA: NO NTP: yes IARC: yes

ADDITIONAL CARCINOGENICITY INFORMATION:

crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline Silica is also listed by the NTP as a known human carcinogen. Titanium Dioxide is listed by IARC as possibly carcinogenic to humans (group 2B).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
MODIFIED DIGLYCIDYL ETHER OF BISPHENOL A					
	25068-38-6	NONE	NONE	NONE	30-60
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	7-13
Alkyl Phenol	84852-15-3	NONE	NONE	NONE	1-5
Alkyl Phenol blocked Isocyanate NJTSRN(31765300002) - 6184P					
		NONE	NONE	NONE	30-60
Cellulose	9004-34-6	15mg/m3	10mg/m3	NONE	1-5
Kaolin	1332-58-7	15mg/m3	10mg/m3	NONE	0.1-1
Talc	14807-96-6	20mg/m3	20mg/m3	20mg/m3	7-13
*crystalline silica (as a component of talc)					
	14808-60-7	10mg/m3	.1mg/m3	.1mg/m3	(<1.0%)
Titanium Dioxide	13463-67-7	10mg/m3	10mg/m3	5mg/m3	1-5

SECTION 3 NOTES: *** indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

SECTION 4: FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES AND CONSULT A PHYSICIAN.

SKIN:

SKIN CONTACT WILL NORMALLY CAUSE NO MORE THAN IRRITATION BUT WASH AFFECTED AREA WITH SOAP AND WATER AND REMOVE CONTAMINATED CLOTHING PROMPTLY.

INGESTION:

LOW IN TOXICITY, INDUCE VOMITING ONLY IF LARGE AMOUNTS OF MATERIAL ARE INGESTED, AND OTHERWISE DO NOT INDUCE VOMITING. IN EITHER CASE CONSULT WITH A PHYSICIAN.

INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR,
(% by volume)

UPPER: not available
LOWER: not available

FLASH POINT: 200+F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER CONFINED AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL ALL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN.

SECTION 6: RELEASE MEASURES

SAFETY DATA SHEET

PRODUCT CODE: 2301

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF THE SOURCE AT THE LEAK. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBENT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN A COOL DRY PLACE. SEAL ALL PARTIALLY USED CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS'S OF ALL THE COMPONENTS PRIOR TO USING MATERIAL. PROPERLY LABEL ALL CONTAINERS

OTHER PRECAUTIONS:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. CONTAMINATED LEATHER ARTICLES CAN NOT BE CLEANED AND MUST BE DISCARDED IF CONTAMINATED WITH THIS PRODUCT. WASH ALL CONTAMINATED CLOTHING PRIOR TO THE REUSE THEREOF

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134. GENERAL EXHAUST IS USUALLY SUFFICIENT IN LIEU OF NIOSH RESPIRATOR

VENTILATION :

GENERAL EXHAUST IS USUALLY SUFFICIENT TO CONTROL VAPORS AND EXPOSURE HAZARDS

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MEDIUM VISCOSITY LIQUID IN VARYING COLORS

BOILING POINT OR RANGE: 200F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H₂O = 1): 1.2

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: N/A

pH: N/A

Melting point/freezing point: N/A

Vapor Pressure: N/A

Auto Ignition Temperature: N/A

Partition Coefficient: n-octanol/water: N/A

Decomposition Temperature: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AVOID EXCESSIVE HEAT OR OPEN FLAMES.

INCOMPATIBILITY (MATERIAL TO AVOID):

CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO₂, ALDEHYDES, ACIDS. REACTION WITH SOME CURING AGENTS CAN GENERATE LARGE AMOUNTS OF HEAT.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

SAFETY DATA SHEET

PRODUCT CODE: 2301

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Moderate sensitizer, slight eye irritant, moderate skin irritant, Oral LD50 >5000 mg/kg (rat), Dermal LD50 >6000 mg/kg (rabbit)

Component CAS# 68609-97-2: possible sensitizer, eye and skin irritant, Oral LD50 >10000 mg/kg (rat), Inhalation LD50 – no microscopic changes

Components Alkyl Phenol CAS# 84852-15-3 and Alkyl Phenol blocked Isocyanate NJTSRN(31765300002) - 6184P: Acute Oral toxicity LD50 >5000 mg/kg. Skin Irritation: exposure time 4hr – no skin irritation. Eye irritation: slightly irritating (rabbit). Mutagenicity: Genetic Toxicity in vitro: Ames – negative (salmonella typhimurium).

Components Alkyl Phenol CAS# 84852-15-3: Acute Oral Toxicity LD50: 1,300 mg/kg (rat) Acute Dermal Toxicity LD50: 2031 mg/kg (rabbit). Skin Irritation: rabbit, OECD test guideline 404, corrosive. Eye Irritation: rabbit, OECD test guideline 405, irritating to eyes. Sensitization: Dermal, not sensitizer (guinea pig, maximization test. Repeated Dose Toxicity: 28 day, oral, NOAEL, 100mg/kg (rat, male/female, daily). Mutagenicity: Genetic toxicity in vitro, Ames – negative results were reported in various in vitro studies (salmonella typhimurium, Metabolic Activation; with/without). Genetic Oxicity in vitro: Micronucleus Assay: negative (mouse, male/female, oral). Toxicity to Reproduction/Fertility: Three generation study, oral, (rat male/female) NOAEL (parental): 200 ppm, NOAEL (F1) 200 ppm NOAEL (F2): 200 ppm. Reproductive effects have been shown in animal studies. Developmental Toxicity/Teratogenicity: rat, female, oral, gestation, daily, NOAEL (teratogenicity) 300 mg/kg. NOAEL (maternal) 75 mg/kg, no teratonic effects observed at doses tested. No fetotoxicity observed at doses tested.

Component(s) Cellulose CAS# 9004-34-6 and Kaolin CAS# 1332-58-7: This product and its components are not listed on the IARC, NTP, or OSHA carcinogens lists. There are no known cases of carcinogenesis from cellulose materials such as this component, and if used in a manner such that airborne concentrations are no greater than 10 mg/m³ (milligrams per cubic meter) or 30 mppcf (million particles per cubic foot) no long term health effects will occur.

Component CAS# 14807-96-6: Carcinogenic effects – this component may contain crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline Silica is also listed by the NTP as a known human carcinogen

Component Titanium Dioxide: Inhalation 4 h LC50 > 6.82 mg/l; Oral LD50 > 5000 mg/kg, rat; In February 2006, IARC listed titanium dioxide as possibly carcinogenic to humans Group 2B.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Biodegradability (Modified Sturm Method) 12%, Fish toxicity: Rainbow trout (96hr) LC50 1.5mg/l, Zebra Fish (96hr) LC50 2.4 mg/l. Invertebrate Toxicity: Daphnia Toxicity (24hr) EC 50 3.6 mg/l

Components Alkyl Phenol CAS# 84852-15-3 and Alkyl Phenol blocked Isocyanate NJTSRN(31765300002) - 6184P: Biodegradation: 0%, exposure time, 28 days – not readily biodegradable. Acute and Prolonged Toxicity to fish: LC0 > 10,000 mg/l (zebra fish, 96 hr). Toxicity to microorganisms: EC50 > 10,000 mg/l.

Components Alkyl Phenol CAS# 84852-15-3: Biodegradation: aerobic, 7%, exposure time, 28 days. Bioaccumulation: fathead minnow, exposure time 20 days, 271 BCF. Acute and Prolonged Toxicity to fish: LC50 = 0.31 mg/l (sheepshead minnow, 96 hr, LC50 0.135 mg/l fathead minnow, 96 hr. Toxicity to microorganisms: EC10 = 10-16 mg/l (Pseudomonas putida). Toxicity to aquatic plants: EC50: 1.3 mg/l, End point: Biomass (green algae, 72 hr)

Component(s) Cellulose CAS# 9004-34-6 and Kaolin CAS# 1332-58-7: These components are not known to have any adverse effect on the aquatic environment when properly disposed.

Component CAS# 14807-96-6: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

Component Titanium Dioxide: Pimephales promelas (fathead minnow) < 1000 mg/l @ 96h LC50; Pseudokirchneriella subcapitata (green algae) 61 mg/l @ 72h EC50; Daphnia magna (water flea) > 1000 mg/l @ 48h EC50

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAW.

SECTION 14: Transport Information

DOT: Not Regulated

IMO/IMDG: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS Bisphenol A Diglycidyl Ether Polymer) , 9, PGIII, MARINE POLLUTANT

SECTION 15: REGULATORY INFORMATION

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Considered a hazardous chemical; is on the TSCA list; is on the DSL Canada, WHMIS class D2B; Is on the New Jersey Right to Know list,; is on the PA Right to Know List;

Component CAS# 68609-97-2: Considered a hazardous chemical; is on the TSCA list; is on the DSL Canada, Is on the New Jersey Right to Know list; is on the PA Right to Know List.

SAFETY DATA SHEET

PRODUCT CODE: 2301

Components Alkyl Phenol CAS# 84852-15-3 and Alkyl Phenol blocked Isocyanate NJTSRN(31765300002) - 6184P: OSHA hazcom standard rating: Hazardous. Components on the following states Right to know substance list: Massachusetts, New Jersey and Pennsylvania. Components are on the TSCA list

Component(s) Cellulose CAS# 9004-34-6 and Kaolin CAS# 1332-58-7: Not considered a hazardous material TSCA: Not applicable
Component CAS# 14807-96-6 may contain Crystalline Silica (Silicon Dioxide) which is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance.

Component Titanium Dioxide: Contains Proposition 65 Chemicals, is on the PA Hazardous substance list, is on the NJ right to know Regulated chemical List.

Titanium Dioxide is on inventory or in compliance with EINECS, TSCA, AICS, DSL, ENCS (JP), KECI (KR), PICCS (PH) and INV (CN).

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available

See Section 1 for date of preparation

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Perma-Joint Sealant Part B
PRODUCT CODES: 2301

MANUFACTURER: The Garland Company, Inc.
STREET ADDRESS: 3800 East 91st. Street
CITY, STATE, ZIP: Cleveland, Ohio 44105

The Garland Company, Inc.
 209 Carrier Drive
 Toronto, Ontario M9W 5Y8



INFORMATION PHONE: 800-762-8225
EMERGENCY PHONE: Chemtrec 800-262-8200

PREPARED BY: Bill Belardo

DATE REVISED: 05-26-15

Chemical Name or Class: Polyamine mixture

SECTION 2: HAZARDS IDENTIFICATION**Hazard Overview**

GHS Classification: Acute oral toxicity category 4, Acute dermal toxicity category 4, Skin corrosion category 1B, Serious eye damage category 1, Skin sensitization category 1, Reproductive toxicity category 1, Acute hazard to aquatic environment category 2, Chronic hazards to aquatic environment category 2

GHS Label Elements and Precautionary Statements:

Label Elements: Exclamation Mark, Corrosion, Health Hazard, Aquatic Toxicity

**Hazard Statements:**

Warning: Harmful if swallowed.

Warning: Harmful in contact with skin.

Danger: Causes severe skin burns and eye damage.

Danger: Causes serious eye damage.

Warning: May cause an allergic skin reaction.

Danger: May damage the fertility of the unborn child.

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102 Keep out of reach of children.

P103 Read label before use

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P260 Do not breathe dust/fume/gas/mist/vapours/spray

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment

Response;

P301 + P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P330 Rinse mouth.

P302 + P352 IF ON SKIN: wash with plenty of soap and water

P312 Call a POISON CENTER or doctor/physician if you feel unwell

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 If in eyes, immediately call a POISON CENTER or doctor/physician.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P363 Wash contaminated clothing before reuse.

P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 If skin irritation or burns develop, Call a doctor/physician .

P308 + P313 IF exposed or concerned: Get medical advice/attention

P391 Collect spillage.

Storage:

SAFETY DATA SHEET

PRODUCT CODE: 2301

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws.

HMIS HAZARD CLASSIFICATION

HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

WILL CAUSE BURNS TO EYES. HIGH VAPOR CONCENTRATIONS CAN CAUSE SEVERE IRRITATION TO THE EYES.

SKIN:

WILL CAUSE BURNS TO THE SKIN

INGESTION:

LIQUID CAN CAUSE SEVERE DAMAGE TO MUCOUS MEMBRANES IF SWALLOWED.

INHALATION:

HIGH CONCENTRATIONS OF VAPOR CAN CAUSE IRRITATION TO THE RESPIRATORY TRACT, NAUSEA, AND DIZZINESS.

HEALTH HAZARDS (ACUTE AND CHRONIC):

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ASTHMA AND SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES. HIGH DOSES OF DIBUTYL PHTHALATE ADMINISTERED IN THE DIET OF MICE THROUGHOUT GESTATION HAVE BEEN ASSOCIATED WITH EMBRYOTOXIC AND TERATOGENIC EFFECTS; OVEREXPOSURE HAS BEEN FOUND TO CAUSE TESTIS DAMAGE IN LABORATORY ANIMALS.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

CARCINOGENICITY

OSHA: NO NTP: yes IARC: yes

ADDITIONAL CARCINOGENICITY INFORMATION:

Some colors may contain carbon black - Explanation Of Carcinogenicity: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2B. crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline Silica is also listed by the NTP as a known human carcinogen

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	OSHA PEL	ACGIH TLV	OSHA STEL	WEIGHT %
NONYL PHENOL	84852-15-3	NONE	NONE	NONE	10-30
N-AMINOETHYLPIPERAZINE	140-31-8	NONE	NONE	NONE	10-30
*1,2-benzenedicarboxylic acid, dibutyl ester	84-74-2	5mg/m3	5mg/m3	5mg/m3	9
LIMESTONE	1317-65-3	15mg/m3	5MG/M3	NONE	15-40
Cellulose	9004-34-6	15mg/m3	10mg/m3	NONE	1-5
Kaolin	1332-58-7	15mg/m3	10mg/m3	NONE	0.1-1
Talc	14807-96-6	20mg/m3	20mg/m3	20mg/m3	1-5
*crystalline silica (as a component of talc)	14808-60-7	10mg/m3	.1mg/m3	.1mg/m3	(<1.0%)
*CARBON	333-86-4	3.5PPM	3.4PPM	NONE	<1.0

SECTION 3 NOTES:

Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.

Note: Ingredients listed without percentages, the percentages are considered a trade secret

SECTION 4: FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ASSISTANCE.

SKIN:

FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES AND REMOVE ALL CONTAMINATED CLOTHING IMMEDIATELY. GET MEDICAL ATTENTION IF REDDENING OR SWELLING OCCURS.

INGESTION:

DO NOT INDUCE VOMITING. DILUTE BY GIVING WATER OR MILK TO DRINK IF VICTIM IS CONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR,
(% by volume)

UPPER: not available
LOWER: not available

FLASH POINT: 200+F

METHOD USED:

SAFETY DATA SHEET

PRODUCT CODE: 2301

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

TOXIC FUMES WILL BE EVOLVED WHEN THIS MATERIAL IS INVOLVED IN A FIRE. A SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR FIRE FIGHTING. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN.

SECTION 6: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

AVOID CONTACT WITH MATERIAL. WEAR THE APPROPRIATE SAFETY EQUIPMENT. STOP SPILL AT SOURCE, DYKE AREA TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. TAKE UP REMAINDER WITH CLAY OR OTHER ABSORBENT AND PLACE IN DISPOSAL CONTAINERS.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS. RESEAL PARTIALLY USED CONTAINERS. PROPERLY LABEL ALL CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.

OTHER PRECAUTIONS:

MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS OF ALL COMPONENTS TO BECOME FAMILIAR WITH ALL HAZARDS PRIOR TO USING THIS PRODUCT.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR PROTECTION REQUIRED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS. FOR EMERGENCIES A SELF-CONTAINED BREATHING APPARATUS OR A FULL FACE RESPIRATOR IS RECOMMENDED.

VENTILATION:

AVOID BREATHING VAPORS. VENTILATION MUST BE SUFFICIENT TO CONTROL VAPORS.

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

EYE PROTECTION:

SPLASH PROOF GOGGLES OR GLASSES WITH SIDE SHIELDS

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SEE SECTION THREE FOR OCCPATONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MEDUIM VISCOSITY LIQUID – VARYING COLORS

BOILING POINT OR RANGE: 360 TO 560 F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H2O = 1): 1.5

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: N/A

pH: N/A

Melting point/freezing point: N/A

Vapor Pressure: N/A

Auto Ignition Temperature: N/A

Partition Coefficient: n-octanol/water: N/A

Decomposition Temperature: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

SAFETY DATA SHEET

PRODUCT CODE: 2301

AVOID CONTACT WITH OPEN FLAMES AND ALL SOURCES OF IGNITIONS AND SPARKS.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID CONTACT WITH STRONG OXIDIZING AGENTS MINERAL ACIDS AND EPOXY RESINS IN UNCONTROLLED AMOUNTS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO, CO₂, NOX

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 140-31-8: Draize test, rabbit, eye: 20 mg/24H Moderate; Draize test, rabbit, skin: 5 mg/24H Severe; Oral, rat: LD50 = 2140 uL/kg; Skin, rabbit: LD50 = 880 uL/kg; Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65. May cause Sensitization by skin contact.

Component Nonyl Phenol: Median Lethal Dose Oral: LD50 0.58g/kg (rat) moderately toxic. Dermal LD50 2.14g/kg (rabbit) slightly toxic. Skin Draize Test, rabbit,: 500 mg/m³ 24hr – corrosive. Eyes Draize test rabbit, 57.00/110 – extremely irritating. Component is a possible risk of impaired fertility.

Component 1,2-benzenedicarboxylic acid, dibutyl ester CAS# 84-74-2: Dibutyl phthalate: ORAL (LD50): Acute: 7499 mg/kg [Rat]. 3474 mg/kg [Mouse]. 10000 mg/kg [Guinea pig]. DERMAL (LD50): Acute: >20000 mg/kg [Rabbit]. MIST (LC50): Acute: 25000 mg/m² 2 hours [Rat]. The substance may be toxic to kidneys, the nervous system, liver, central

nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Toxicity to Animals: WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 3474 mg/kg [Mouse]. Acute dermal toxicity (LD50): >20000 mg/kg [Rabbit]. Acute toxicity of the mist (LC50): 25000 mg/m² 2 hours [Rat]. 3

Component Limestone: LD50 Oral (rat) = 6450 mg/kg. This product contains greater than 0.1% crystalline silica which is listed as a group I carcinogen by IARC, a known carcinogen by NTP, OSHA and as A2 suspected human carcinogen by ACGIH

Component(s) Cellulose CAS# 9004-34-6 and Kaolin CAS# 1332-58-7: This product and its components are not listed on the IARC, NTP, or OSHA carcinogens lists. There are no known cases of carcinogenesis from cellulose materials such as this component, and if used in a manner such that airborne concentrations are no greater than 10 mg/m³ (milligrams per cubic meter) or 30 mppcf (million particles per cubic foot) no long term health effects will occur.

Component CAS# 14807-96-6: Carcinogenic effects – this component may contain crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline Silica is also listed by the NTP as a known human carcinogen

Component Carbon: IARC lists carbon as a possible human carcinogen Category 2B. LD50 – Intravenous, mouse = 440 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component Nonyl Phenol: Ecotoxicity: Daphnia EC50: 0.14-0.44 mg/l, 48 hr. Component is not readily biodegradable, log Pow: 3-4. Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.. Aquatic Toxicity LC50 96 hr, toxicity rating is <0.10 ppm – extremely toxic

Component 1,2-benzenedicarboxylic acid, dibutyl ester CAS# 84-74-2: Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Component Limestone: inert material

Component(s) Cellulose CAS# 9004-34-6 and Kaolin CAS# 1332-58-7: These components are not known to have any adverse effect on the aquatic environment when properly disposed.

Component CAS# 14807-96-6: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

DISPOSE OF MATERIAL AS A HAZARDOUS WASTE ACCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION 14: Transport Information

DOT: UN1760, CORROSIVE LIQUID N.O.S. (N-AMINOETHYLPIPERAZINE, DIBUTYL PHTHALATE, NONYL PHENOL), 8, UN1760, PG III, MARINE POLLUTANT

IMO/IMDG: UN1760, CORROSIVE LIQUID N.O.S. (N-AMINOETHYLPIPERAZINE, DIBUTYL PHTHALATE, NONYL PHENOL), 8, UN1760, PG III, MARINE POLLUTANT

SECTION 15: REGULATORY INFORMATION

No data for the product itself.

SAFETY DATA SHEET

PRODUCT CODE: 2301

Component data:

Component CAS# 140-31-8: Component is listed on the TSCA inventory. Component can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts. Component contains no California Prop 65 Significant Risk Level: and none of the chemicals in this product are listed. Component is list on the Canadian DSL list, EINECS, AICS, ENCS, ECL, SEPA, PICCS lists.

Component Nonyl Phenol: This component is listed on TSCA, EINECS, ACIS, MITI and Canada DSL lists.

Component 1,2-benzenedicarboxylic acid, dibutyl ester CAS# 84-74-2: Federal and State Regulations:

Connecticut hazardous material survey.: Dibutyl phthalate Illinois toxic substances disclosure to employee act: Dibutyl phthalate Illinois chemical safety act: Dibutyl phthalate New York release reporting list: Dibutyl phthalate Rhode Island RTK hazardous substances: Dibutyl phthalate Pennsylvania RTK: Dibutyl phthalate Minnesota: Dibutyl phthalate Massachusetts RTK: Dibutyl phthalate Massachusetts spill list: Dibutyl phthalate New Jersey: Dibutyl phthalate New Jersey spill list: Dibutyl phthalate Louisiana spill reporting: Dibutyl phthalate California Director's List of Hazardous Substances: Dibutyl phthalate TSCA 8(b) inventory: Dibutyl phthalate TSCA 8(a) IUR: Dibutyl phthalate TSCA 8(d) H and S data reporting: Dibutyl phthalate: Effective Date: 10/4/82; Sunset Date: 10/4/92 SARA 313 toxic chemical notification and release reporting: Dibutyl phthalate CERCLA: Hazardous substances.: Dibutyl phthalate: 10 lbs. (4.536 kg) Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances. Other Classifications: WHMIS (Canada): Not controlled under WHMIS (Canada). DSCL (EEC): R50- Very toxic to aquatic organisms. R61- May cause harm to the unborn child. R62- Possible risk of impaired fertility. S45- S61- Avoid release to the environment. .

Component Limestone: TSCA listed. Canada Exempt, naturally occurring Substance. EINECS, ECL, ENCS, CIES, PICCS listed. This product contains trace amounts of chemicals known to the state of California to cause cancer or reproductive effects.

Component(s) Cellulose CAS# 9004-34-6 and Kaolin CAS# 1332-58-7: Not considered a hazardous material TSCA: Not applicable

Component CAS# 14807-96-6 may contain Crystalline Silica (Silicon Dioxide) which is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance.

Component Carbon: Contains Proposition 65 Chemicals .Carbon: is listed on TSCA and DSL Canada

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available

See Section 1 for date of preparation