

SAFETY DATA SHEET

PRODUCT CODE: 380

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NP380 PART A
PRODUCT CODES: 380 A

MANUFACTURER: National Polymers Inc.
STREET ADDRESS: 9 Guttman Avenue
CITY, STATE, ZIP: Charleroi, Pa. 15022

INFORMATION PHONE: 724-483-9300
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

PREPARED BY: Gary Zippay

DATE REVISED: 12/15/20

Chemical Name or Class: Epoxy mixture

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: (H319 Serious eye damage/Eye irritation category 2A), (H315 Skin irritation category 2), (H317 skin sensitizer category 1), (H411 Hazardous to the aquatic environment, long term hazard Category 2), (H402 Hazardous to the aquatic environment, acute hazard Category 3)

GHS Label Elements and Precautionary Statements:

Label Elements: Exclamation Mark, Aquatic Toxicity



Hazard Statements:

Warning: Causes serious eye irritation.

Warning: Causes skin irritation

Warning: May cause an allergic skin reaction

Toxic to aquatic life with long lasting effects

Harmful to aquatic life

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/vapors/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

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.

P391 Collect spillage.

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:

MAY CAUSE IRRITATION BUT NO CORNEAL INJURY IS LIKELY.

SKIN:

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):

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

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
RESPIRATORY CONDITIONS OR OTHER ALLERGIC RESPONSE.

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

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 BIPHENOL A	25068-38-6	NONE	NONE	NONE	60-100
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	10-30
Polymer dispersion (defoamer)	proprietary	NONE	NONE	NONE	<0.5
Non aqueous emulsion of a polysiloxane (fluoroaliphatic polymeric esters) contains 2-propenoic acid, 2-[Methyl](nonafluorobutyl) sulfonyl]amino]ethyl ester, telomere with methyloxirane polymer with oxirane di-2-propenoate and methyloxirane polymer with oxirane mono-prprenoate	1017237-78-3	none	none	none	<0.3%
(fluoroaliphatic polymeric esters) contains 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-n-(2-hydroxyethyl)-N-methyl-	34454-97-2	1mg/m3(skin)	none	none	<0.01%
(fluoroaliphatic polymeric esters) contain 2-propenoic acid, 2-[methyl]nonafluorobutyl)sulfonyl]amino]ethyl ester	67584-55-8	none	none	none	<0.01%
(fluoroaliphatic polymeric esters) contains polyether polymer (NJTSRN 04499600-6437)	none	none	none	none	<0.1%
(fluoroaliphatic polymeric esters) contains 2-methoxymethylethoxypropanol	34590-94-8	600mg/m3(skin)	100ppm	150ppm	<0.1%
*(fluoroaliphatic polymeric esters) contain toluene	108-88-3	200ppm	20ppm	300ppm	<0.01%
(fluoroaliphatic polymeric esters) contains 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-n-methyl-	68298-12-4	3mg/m3	none	none	<0.001%
Polyether modified polydimethylsiloxane (NJTSRN 800963-5023)	none	none	none	none	0.1-1
*Polyether modified polydimethylsiloxane (Component Xylene)	1330-20-7	100ppm	100ppm	150ppm	<0.01%

(*)INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CRF 372

Note: Ingredients listed without percentages, the percentages are considered a trade secret. If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

GENERAL ADVICE:

MOVE OUT OF DANGEROUS AREA. GET MEDICAL ATTENTION IS SYMPTOMS OCCUR. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. NOTES TO PHYSICIAN: TREAT SYMPTOMATICALLY.

EYES:

IMMEDIATELY FLUSH EYE(S) WITH PLENTY OF WATER. REMOVE CONTACT LENSES. KEEP EYE WIDE OPEN WHILE RINSING. IF EYE IRRITATION PERSISTS, CONSULT A SPECIALIST.

SKIN:

IF ON SKIN, RINSE WELL WITH WATER. IF ON CLOTHES, REMOVE CLOTHES. IF SKIN IRRITATION PERSISTS, CALL A PHYSICIAN.

INGESTION:

KEEP RESPIRATORY TRACT CLEAR. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF SYMPTOMS PERSIST, CALL A PHYSICIAN.

INHALATION:

REMOVE VICTIM TO FRESH AIR AREA AND ADMINISTER OXYGEN IF NECESSARY.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, **UPPER:** not available
(% by volume) **LOWER:** not available

FLASH POINT: 200+F

METHOD USED:

SETA FLASH

SUITABLE EXTINGUISHING MEDIA:

USE EXTINGUISHING MEASURES THAT ARE APPROPRIATE TO THE LOCAL CIRCUMSTANCES AND THE SURROUNDING ENVIRONMENT.

UNSUITABLE EXTINGUISHING MEDIA:

HIGH VOLUME WATER JET

SPECIFIC HAZARDS DURING FIREFIGHTING:

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DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES.

HAZARDOUS COMBUSTION PRODUCTS:

CARBON OXIDES, HALOGENATED COMPOUNDS

FURTHER INFORMATION:

COLLECT CONTAMINATED FIRE EXTINGUISHING WATER SEPARATELY. THIS MUST NOT BE DISCHARGED INTO DRAINS. FIRE RESIDUES AND CONTAMINATED FIRE EXTINGUISHING WATER MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:

WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY.

SECTION 6: RELEASE MEASURES

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

USE PERSONAL PROTECTIVE EQUIPMENT. REFER TO PROTECTIVE MEASURES LISTED IN SECTIONS 2, 3, 7 & 8. PREVENT PRODUCT FROM ENTERING DRAINS. PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. IF THE PRODUCT CONTAMINATES RIVERS AND LAKES OR DRAINS, INFORM RESPECTIVE AUTHORITIES. SOAK UP WITH INERT ABSORBENT MATERIAL. KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

SECTION 7: HANDLING AND STORAGE

ADVICE ON PROTECTION AGAINST FIRE AND EXPLOSION:

NORMAL MEASURES FOR PREVENTIVE FIRE PROTECTION.

ADVICE ON SAFE HANDLING:

DO NOT BREATHE VAPORS/DUST. AVOID EXPOSURE – OBTAIN SPECIAL INSTRUCTIONS BEFORE USE. AVOID CONTACT WITH SKIN AND EYES. FOR PERSONAL PROTECTION, SEE SECTIONS 2 & 8. SMOKING, EATING AND DRINKING SHOULD BE PROHIBITED IN THE APPLICATION AREA. DISPOSE OF RINSE WATER IN ACCORDANCE WITH LOCAL AND NATIONAL REGULATIONS. PERSONS SUSCEPTIBLE TO SKIN SENSITIZATION PROBLEMS OR ASTHMA, ALLERGIES, CHRONIC OR RECURRENT RESPIRATORY DISEASE SHOULD NOT BE EMPLOYED IN ANY PROCESS IN WHICH THIS MIXTURE IS BEING USED.

CONDITIONS FOR SAFE STORAGE:

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE. KEEP IN PROPERLY LABELLED CONTAINERS.

MATERIALS TO AVOID:

NONE KNOWN.

FURTHER INFORMATION ON STORAGE STABILITY:

STABLE UNDER NORMAL CONDITIONS.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

GENERAL AND LOCAL EXHAUST VENTILATION IS RECOMMENDED TO MAINTAIN VAPOR EXPOSURES BELOW RECOMMENDED LIMITS. WHERE CONCENTRATIONS ARE ABOVE RECOMMENDED LIMITS OR ARE UNKNOWN, APPROPRIATE RESPIRATORY PROTECTION SHOULD BE WORN. FOLLOW OSHA RESPIRATOR REGULATIONS (29 CFR 1910.134) AND USE NIOSH/MSHA APPROVED RESPIRATORS. PROTECTION PROVIDED BY AIR PURIFYING RESPIRATORS AGAINST EXPOSURE TO ANY HAZARDOUS CHEMICAL IS LIMITED. USE A POSITIVE PRESSURE AIR SUPPLIED RESPIRATOR IF THERE IS ANY CIRCUMSTANCE WHERE AIR PURIFYING RESPIRATORS MAY NOT PROVIDE ADEQUATE PROTECTION.

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.

SEE SECTION THREE FOR OCCUPATIONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LOW VISCOSITY LIQUID – AMBER CLEAR

BOILING POINT OR RANGE ° F: 200 TO 560 DEG F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H₂O = 1): 1.1

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: N/A

pH: N/A

Melting point/freezing point: N/A

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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

Acute Oral Toxicity:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – LD50, rat, female: > 2,000 mg/kg (OECD 420); assessment: no acute oral toxicity

Component (ALKYL GLYCIDYL ETHER) – LD50, rat, male: ca. 26.8 g/kg

Component of (Polymer dispersion (defoamer): Organosiloxane) – LD50, rat, oral > 17 g/kg

Component (Non aqueous emulsion of a polysiloxane) – LD50 (rat): > 10,000 mg/kg

Acute Inhalation Toxicity:

Component (ALKYL GLYCIDYL ETHER) – LC0, rat: > 0.15 mg/l, 7h, vapor

Component (Non aqueous emulsion of a polysiloxane) – LD50 (rat, male and female): 58.8 mg/l, 4h (OECD 403), GLP: yes

Acute Dermal Toxicity:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – LD50, rat, male and female: > 2,000 mg/kg (OECD 402); assessment: no acute dermal toxicity.

Component (ALKYL GLYCIDYL ETHER) – rabbit, male: > 4,000 mg/kg, 4.5 ml/kg; assessment: no acute dermal toxicity.

Component of (Polymer dispersion (defoamer): Organosiloxane) - LD50, rabbit, dermal > 2g/kg

Name	Route	Species	Value
Component CAS# 1017237-78-3	Dermal	Rat	LD50>2000 mg/kg
Component CAS# 1017237-78-3	Ingestion	Rat	LD50>2000 mg/kg
Component CAS# NJTSRN 04499600-6437P	Dermal	Estimated	LD50>5000 mg/kg
Component CAS# NJTSRN 04499600-6437P	Ingestion	Rat	LD50 5700 mg/kg
Component CAS# 34590-94-8	Dermal	Rabbit	LC50>19,000 mg/kg
Component CAS# 34590-94-8	Inhalation	Rat	LC50>50 mg/l, 4h, dust/mist
Component CAS# 34590-94-8	Ingestion	Rat	LD50 5,180 mg/kg
Component CAS# 108-88-3	Dermal	Rat	LD50 12,000 mg/kg
Component CAS# 108-88-3	Inhalation	Rat	LC50 30 mg/l, 4h, vapor
Component CAS# 108-88-3	Ingestion	Rat	LD50 5,550 mg/kg
Component CAS# 34454-97-2	Dermal	Estimated	LD50 2000-5000 mg/kg
Component CAS# 34454-97-2	Ingestion	Rat	LD50>2000 mg/kg
Component CAS# 67584-55-8	Dermal	Rat	LD50>2000 mg/kg
Component CAS# 67584-55-8	Ingestion	Rat	LD50>2000 mg/kg
Component CAS# 68298-12-4	Ingestion	Rat	LD50 200-2000 mg/kg

Skin corrosion/irritation:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – rabbit, mild skin irritant (OECD 404); result: irritating to skin.

Component (ALKYL GLYCIDYL ETHER) – rabbit, 24h; result: irritating to skin.

Component (CAS# 108-88-3) – rabbit - irritant

Serious eye damage/eye irritation:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – rabbit (OECD 405); result: irritating to eyes, assessment: mild eye irritant.

Component (ALKYL GLYCIDYL ETHER) – rabbit (OECD 405); result: slight irritation, assessment: no eye irritation.

Name	Species	value
Component CAS# 34590-94-8	Rabbit	Mild irritant
Component CAS# 108-88-3	Rabbit	Moderate irritant
Component CAS# 34454-97-2	Rabbit	Mild irritant
Component CAS# 67584-55-8	Rabbit	Mild irritant
Component CAS# 68298-12-4	Rabbit	Severe irritant

Respiratory or skin sensitization:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – skin, mouse (OECD 429); result: causes sensitization, assessment: may cause sensitization by skin contact.

Component (ALKYL GLYCIDYL ETHER) – skin, guinea pig, Buehler Test (OPPTS 870.2600); result: may cause sensitization by skin contact.

Component (CAS# 67584-55-8) – skin, guinea pig, sensitizing

Genotoxicity in vitro:

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Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – (OECD 476), with and without metabolic activation; result: positive. (OECD 471), with and without metabolic activation, 0-5000 ug/plate concentration; result: positive.

Component (ALKYL GLYCIDYL ETHER) – (OECD 471), with and without metabolic activation, Ames test (Salmonella typhimurium); result: positive. (OECD 476), with and without metabolic activation, In vitro mammalian cell gene mutation test (Chinese hamster ovary cells); result: negative.

Genotoxicity in vivo:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – (OECD 478), germ cell, oral; result: negative. (OPPTS 870.5395), somatic cell, oral dose 0-5000 mg/kg; result: negative.

Component (ALKYL GLYCIDYL ETHER) – (OECD 474), In vivo micronucleus test, mouse (male and female), bone marrow, intraperitoneal injection; result: negative.

Carcinogenicity:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – (OECD 453), rat (male and female), oral dose 15 mg/kg, 7 day/week, 24 months; result: negative. (OECD 453), mouse (male), dermal dose 0.1 mg/kg, 3 days/week, 24 months; result: negative. (OECD 453), rat (female), dermal dose 1mg/kg, 5 days/week, 24 months; result: negative.

Component (CAS# 108-88-3) – Some positive data exists, but the data is not sufficient for classification.

Reproductive toxicity (effects on fertility):

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – (OECD 416), rat (male and female), two-generational study, oral dose > 750 mg/kg; result: no effects on fertility and early embryonic development were detected.

Component (ALKYL GLYCIDYL ETHER) – (OECD 411), rat (male and female), 5 days/week, 13 weeks; result: no observed adverse effect level @ 100 mg/kg body weight.

Name	Route	Value	Species	Test Result	Exposure duration
Component CAS# 108-88-3	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	During gestation
Component CAS# 108-88-3	Ingestion	Toxic to development	Human	NOAEL not available	Poisoning and/or abuse
Component CAS# 34454-97-2	Ingestion	Toxic to development	Rat	NOAEL 50 mg/kg/day	Premating & during gestation
Component CAS# 68298-12-4	Ingestion	Toxic to female reproduction	Rat	NOAEL 150 mg/kg/day	Premating & during gestation
Component CAS# 68298-12-4	Ingestion	Toxic to male reproduction	Rat	NOAEL 150 mg/kg/day	28 days
Component CAS# 68298-12-4	Ingestion	Toxic to development	Rat	NOAEL 150 mg/kg/day	Premating & during gestation

Reproductive toxicity (effects on fetal development):

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – rabbit (female), dermal, 30 mg/kg body weight; result: no teratogenic effects.

(OECD 414), rabbit (female), oral, 60 mg/kg body weight; result: no teratogenic effects. (OECD 414), rat (female), oral, 180 mg/kg body weight; result: no teratogenic effects.

Component (ALKYL GLYCIDYL ETHER) – (OECD 414), rat (female), dermal, 200 mg/kg body weight, 6h; result: no teratogenic effects.

STOT – single exposure:

Name	Route	Target organ(s)	Value	Species	Test result	Exposure duration
Component CAS# 108-88-3	Inhalation	Central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL not available	Poisoning and/or abuse
Component CAS# 108-88-3	Inhalation	Respiratory irritation	Some positive data exists but the data are not sufficient for classification	Human	NOAEL not available	
Component CAS# 34454-97-2	Inhalation	Nervous system	May cause damage to organs	Rat	LOAEL 2000 mg/kg	n/a

STOT – repeated exposure:

Name	Route	Target organ(s)	Value	Species	Test result	Exposure duration
Component CAS# 108-88-3	Inhalation	Auditory system / nervous system / eyes / olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL not available	Poisoning and/or abuse
Component CAS# 108-88-3	Inhalation	Respiratory system	Some positive data exists, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Component CAS# 108-88-3	Ingestion	Nervous system	Some positive data exists, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Component CAS# 34454-97-2	Ingestion	Liver	May cause damage to organs through prolonged or repeated exposure	Rat	NOAEL 50 mg/kg/day	28 days
Component CAS# 34454-97-2	Ingestion	Immune system	Some positive data exists, but the data are not sufficient for classification	Rat	NOAEL 50 mg/kg/day	28 days
Component CAS# 67584-55-8	Ingestion	Liver / kidney and/or bladder	Some positive data exists, but the data are not sufficient for classification	Rat	NOAEL 100 mg/kg/day	
Component CAS# 68298-12-4	Ingestion	Nervous system	Some positive data exists, but the data are not sufficient for classification	Rat	NOAEL 150 mg/kg/day	Premating & during gestation

Repeated dose Toxicity:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – rat (male and female), NOAEL 50 mg/kg, ingestion, 7d, 14w, subchronic toxicity.

Rat (male and female), NOAEL 10 mg/kg, 5d, 13w; subchronic toxicity. Mouse (male), NOAEL 100 mg/kg, skin, 3d, 13w; subchronic toxicity.

Component (ALKYL GLYCIDYL ETHER) – rat (male and female), NOEL 1mg/kg, LOAEL 10 mg/kg, skin, 5d, 13w; subchronic toxicity.

Aspiration Toxicity:

Component (CAS# 108-88-3) – is an aspiration hazard

Other Toxicological Information:

Component (Polyether modified polydimethylsiloxane NJTSRN 800963-5023):

Acute oral toxicity: LD50 rat :> 8,000 mg/kg (OECD 401) – GLP: yes.

Skin corrosion: rabbit: no skin irritation (OECD 404) – GLP: yes

Serious eye damage/eye irritation: rabbit: no eye irritation (OECD 405) – GLP: yes

Repeated dose toxicity: Absorption of ingredients (solvents) by inhalation and/or repeated skin contact has caused injury to liver, kidney, brain, respiratory system, blood, and/or bone marrow in laboratory animals. In humans, inhaling high concentrations are irritating to the respiratory tract. Has caused headaches, dizziness, nausea, vomiting and CNS depression (drowsiness, loss of coordination and fatigue). Repeated skin contact may cause irritation. Repeated eye contact may cause irritation. Repeated ingestion may irritate the digestive tract; high dosages may cause CNS depression.

Component (CAS 1330-20-7) xylene as a component of polyether modified polydimethylsiloxane:

Acute oral toxicity: LD50 rat: 4,300 mg/kg (EC 92/69/EEC B.1) – GLP: no.

Acute inhalation toxicity: LC50 rat: 5000ppm @ 4h.

Acute dermal toxicity: LD50 rabbit: 1,700 mg/kg. LD50 rabbit: > 4,200 mg/kg.

Skin corrosion: rabbit: moderate skin irritation.

Serious eye damage/eye irritation: rabbit: result-eye irritation.

Repeated dose toxicity: Animal studies have shown Xylene to cause fetotoxic effects at dosage levels at or near maternal toxicity levels. Excessive inhalation of Xylene has caused hearing loss in laboratory animals. Chronic skin contact w/Xylene has caused dermatitis.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to Fish:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – LC50 (Oncorhynchus mykiss / rainbow trout): 1.5 mg/l, 96h, OECD 203, static test, fresh water.

Component (ALKYL GLYCIDYL ETHER) - LL50 (Oncorhynchus mykiss / rainbow trout): > 100 mg/l, 96h, OECD 203, semi-static test.

Component of (Polymer dispersion (defoamer): Treated silica) – LC50: > 1000 m/l, 96h.

Component of (Polymer dispersion (defoamer): Sodium Sulfate Decahydrate) – LC50 (24-96h): 13500-14000 mg/l (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – EC50 (Daphnia magna / water flea): 2.7 mg/l, 48h, static test.

Component (ALKYL GLYCIDYL ETHER) – EL50 (Daphnia magna / water flea): 7.2 mg/l, 48h, OECD 202, static test.

Component of (Polymer dispersion (defoamer): Treated silica) - EC50: > 1000 mg/l, 24h

Component of (Polymer dispersion (defoamer): Sodium Sulfate Decahydrate) – LC50 (96h): 4547 mg/l (daphnia magna)

Toxicity to algae/aquatic plants:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – EC50 (Selenastrum capricornutum / green algae): 9.4 mg/l, 72h, EPA-660/3-75-009, static test, fresh water.

Component (ALKYL GLYCIDYL ETHER) – IC50 (Selenastrum capricornutum / green algae): 843.75 mg/l, 72h, OECD 201, static test.

Chronic toxicity to daphnia and other aquatic invertebrates:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – NOEC (Daphnia magna / water flea): 0.3 mg/l, 21d, OECD 211, semi-static test, fresh water.

Toxicity to microorganisms:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – IC50 (activated sludge): > 100 mg/l, 3h, static test, fresh water.

Component (ALKYL GLYCIDYL ETHER) – IC50 (activated sludge) : > 100 mg/l, 3h, OECD 209, static test.

Ecotoxicity Assessment: Acute aquatic toxicity:

Product – Harmful to aquatic life

Biodegradability:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – Inoculum: Sewage (STP effluent), 20 mg/l, 28d, OECD 301F, Biodegradation = 5%, result: not readily biodegradable.

Component (ALKYL GLYCIDYL ETHER) – Aerobic test, Inoculum: activated sludge, 100 mg/l, 28d, OECD 301F, Biodegradation = 87%, result: readily biodegradable.

Stability in water:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – Degradation half-life (DT50): 4.83 d (77F/25C) pH = 4, OECD 111, fresh water.

Degradation half-life (DT50): 7.1 d (77F/25C) pH = 9, OECD 111, fresh water. Degradation half-life (DT50): 3.58 d (77F/25C) pH = 7, OECD 111, fresh water.

Bioaccumulation:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – Bioconcentration factor (BCF) = 31; does not bioaccumulate.

Partition coefficient: n-octanol/water:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – log Pow: 3.242 (77F/25C) pH = 7.1 (OECD 117)

Component (ALKYL GLYCIDYL ETHER) – log Pow: 3.77 (68F/20C), OECD 107

Distribution among environmental compartments:

Component (MODIFIED DIGLUCIDYL ETHER OF BISPHENOL A) – Koc: 445

Ozone-depletion Potential:

This product neither contains nor was manufactured with a Class I or Class II ODS as defined by the US Clean Air Act Section 602

Additional ecological information:

Product – An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life. Toxic to aquatic life with long lasting effects.

Component (fluoroaliphatic polymeric esters) Ecological information not determined, Chemical fate information not determined.

Component (Polyether modified polydimethylsiloxane NJTSRN 800963-5023): Biodegradability: Result – not readily biodegradable (0%) – exposure time 28d (OECD 301)

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

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

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

SARA 311/312 Hazards: see section 2**California Prop 65:** This product can expose you to chemicals including Formaldehyde, Propylene oxide, 1,4-Dioxane, Ethylene oxide, ethyl benzene, cumene, acetyldehyde, and benzene which is/are known to the state of California to cause cancer. This product can expose you to chemicals including 4,4'-isopropylidenediphenol, ethylene oxide, toluene and benzene which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component (MODIFIED DIGLYCIDYL ETHER OF BISPHENOL A) – Listed on TSCA, DSL, CH INV, AICS, NZIoC, ENCS, KEIC, PICCS, IECSC, TSCI.

Component (ALKYL GLYCIDYL ETHER - Listed on TSCA, DSL, CH INV, AICS, NZIoC, ENCS, KEIC, PICCS, IECSC, TSCI.

Component (Polymer dispersion (defoamer)) – complies with or listed on TSCA, AICS, DSL, IECSC, EINECS, METI, KECL, PICCS inventories.

Component (Non aqueous emulsion of a polysiloxane) – Contains ingredients listed on Massachusetts Right to Know ([silica, amorphous CAS# 7631-86-9], [formaldehyde CAS# 50-00-0], [Propylene oxide CAS# 75-56-9, 1,4-Dioxane CAS# 123-91-1], [Ethylene oxide CAS# 75-21-8]). Contains ingredients listed on Pennsylvania Right to Know ([oxirane, me, polymer with oxirane monobutyl ether (polyalkylene glycol) CAS# 9038-95-3], [1,2-Propanediol CAS# 57-55-6], [Silica, amorphous CAS# 7631-86-9]). Contains ingredients listed on New Jersey Right to Know ([oxirane, me, polymer with oxirane monobutyl ether (polyalkylene glycol) CAS# 9038-95-3], [1,2-Propanediol CAS# 57-55-6], [Silica, amorphous CAS# 7631-86-9], [Polysiloxanes NJ TSRN 800963-5499]). All components TSCA and DSL listed.

Component (Fluoroaliphatic Polymeric Esters): may contain trace amounts of Section 313 toxic chemicals toluene CAS# 108-88-3. Components on TSCA list or in compliance. Contains chemicals that can cause birth defects or other reproductive harm. The Ingredients are on DSL Canada, Chinas inventory of chemical substances, EINECS, Korean Existing Chemical Inventory Toluene is a California proposition 65 chemical (female reproductive toxin, developmental toxin) This component contains a TSCA section 12(b) chemical (CAS# 1017237-78-3), but is in a quantity less than 0.3%.

Component (Polyether modified polydimethylsiloxane NJTSRN 800963-5023):

On TSCA List & Canadian DSL List

Massachusetts Right to Know:

CAS# 75-07-0 Acetaldehyde, CAS# 50-00-0 Formaldehyde, CAS# 123-91-1 1,4-Dioxane, CAS# 75-56-9 Propylene oxide

Pennsylvania Right to Know:

Polyether modified polydimethylsiloxane, Polyether, CAS#1330-20-7 Xylene, CAS# 100-41-4 Ethyl benzene

New Jersey Right to Know:

Polyether modified polydimethylsiloxane, Polyether

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: NP380 PART B
PRODUCT CODES: 380 B

MANUFACTURER: National Polymers Inc.
STREET ADDRESS: 9 Guttman Avenue
CITY, STATE, ZIP: Charleroi, Pa. 15022

INFORMATION PHONE: 724-483-9300
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

PREPARED BY: Gary Zippay

DATE REVISED: 12/15/20

Chemical Name or Class: Polyamine mixture

SECTION 2: HAZARDS IDENTIFICATION**Hazard Overview**

GHS Classification: (H302 Acute toxicity, oral category 4), (H332 Acute toxicity, inhalation category 4), (H314 Skin corrosion/irritation category 1B), (H318 Serious eye damage/eye irritation category 1), (H317 Sensitization, skin category 1), (H361 Reproductive Toxicity Category 2), (H400 Hazardous to the aquatic environment, acute hazard category 1), (H410 Hazardous to the aquatic environment, long term hazard category 1)

GHS Label Elements and Precautionary Statements:

Signal Word: **DANGER**

**Hazard Statements:**

Warning: Harmful if swallowed or inhaled.

Danger: Causes Severe skin burns and eye damage.

Danger: Causes serious eye damage.

Warning: May cause an allergic skin reaction.

Warning: Suspected of damaging fertility or the unborn child.

Warning: Very 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.

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

P271 Use only outdoors or in a well-ventilated area

P272 Contaminated work clothing should not be allowed out of the workplace.

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

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 + P310 IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth

P304 + P340 + P310 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing. 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.

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

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

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

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

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

P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

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P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws.
Other Non-classifiable potential hazards
Germ cell mutagenicity category 2

HMIS HAZARD CLASSIFICATION

HEALTH: 3* FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: H

(*) represents a chronic hazard

POTENTIAL HEALTH EFFECTS

EYES:

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

SKIN:

CAN CAUSE SKIN IRRITATION OR POSSIBLE 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.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

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>
BENZYL ALCOHOL	100-51-6	NONE	NONE	NONE	15-40
3-Aminomethyl-3,5,5-trimethylcyclohexane (isophoronediamine)	2855-13-2	NONE	NONE	NONE	15-40
1,3-Benzenedimethanamine	1477-55-0	NONE	0.1mg/m ³	NONE	5-15
1,3-Benzenedimethanamine, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]	110839-13-9	NONE	NONE	NONE	10-30
*4-NONYLPHENOL, BRANCHED	84852-15-3	NONE	NONE	NONE	10-20
SALICYLIC ACID	69-72-7	NONE	NONE	NONE	1-5
BENZYLDIMETHYLAMINE	103-83-3	NONE	NONE	NONE	1-5

*INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE 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

GENERAL ADVICE:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

INHALATION:

Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

SKIN CONTACT:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be immediately available.

EYE CONTACT:

Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

INGESTION:

Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth unless the person is fully conscious.

NOTES TO PHYSICIAN:

Maintain adequate ventilation and oxygenation of the patient. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR,
(% by volume)**UPPER: not available**
LOWER: not available**FLASH POINT: 199+F****METHOD USED:****SETA FLASH****SUITABLE EXTINGUISHING MEDIA:**

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam (Alcohol resistant foams (ATC type) are preferred). General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

UNSUITABLE EXTINGUISHING MEDIA:

Do not use direct water stream. May spread fire.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE - HAZARDOUS COMBUSTION PRODUCTS:

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: **Nitrogen oxides. Carbon monoxide. Carbon dioxide.**

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE - UNUSUAL FIRE AND EXPLOSION HAZARDS:

Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

ADVICE FOR FIREFIGHTERS – FIRE FIGHTING PROCEDURES:

Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.

SECTION 6: RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area.

ENVIRONMENTAL PRECAUTIONS:

Prevent from entering into soil, ditches, sewers, waterways, and/or groundwater.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Contain spilled material if possible. Absorb with materials such as: Sand. Collect in suitable and properly labeled containers.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Keep away from heat, sparks and flame. Do not get in eyes, on skin, on clothing. Avoid breathing vapor. Do not swallow. Avoid prolonged contact with eyes, skin and clothing. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld or perform similar operations on or near empty containers.

CONDITIONS FOR SAFE STORAGE:

Store in a cool, dry place. Store at temperatures between 32-86F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Use engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

EYE/FACE PROTECTION:

Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

HAND PROTECTION:

Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Chlorinated polyethylene. Natural rubber (latex). Neoprene. Polyethylene. Ethyl vinyl alcohol laminate (EVAL). Examples of acceptable glove barrier materials include: Butyl rubber. Nitrile/butadiene rubber (nitrile or NBR). Polyvinyl alcohol (PVA). Polyvinyl chloride (PVC or vinyl). Viton. **NOTICE:** The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

RESPIRATORY PROTECTION:

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SEE SECTION THREE FOR OCCPATIONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: AMBER CLEAR LIQUID WITH AMINE ODOR.

BOILING POINT OR RANGE: 399+F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H₂O = 1): 1.04

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

REACTIVITY:

N/A

CHEMICAL STABILITY:

Stable under recommended storage conditions.

POSSABILITY OF HAZARDOUS REACTIONS:

Polymerization will not occur

CONDITIONS TO AVOID:

Exposure to elevated temperatures can cause product to decompose

INCOMPATIBLE MATERIALS:

Avoid contact with: Acids, Halogenated hydrocarbons and oxidizers. Avoid contact with metals such as: Brass, Bronze, Copper and Copper alloys.

HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aromatic compounds, amines, hydrocarbons and phenolics.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Oral Toxicity:

Product – Low toxicity if swallowed. Swallowing may result in gastrointestinal irritation or ulceration. Swallowing may result in burns of the mouth and throat.

Component (4-Nonylphenol, branched) - Acute toxicity estimate: 1,441 mg/kg, calculation method

Acute Dermal Toxicity:

Product – Prolonged or widespread skin contact may result in absorption of potentially harmful amounts.

Component (Benzyl Alcohol) – LD50, rabbit > 2000 mg/kg – no deaths occurred at this concentration.

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – LD50, rat (male and female) > 2000 mg/kg – no deaths occurred at this concentration.

Component (1,3-Benzenedimethanamine) – LD50, rat > 3100 mg/kg – no deaths occurred at this concentration.

Component (4-Nonylphenol, branched) – LD50, rabbit, 2031-2831 mg/kg

Component (Salicylic acid) – LD50, rat > 2000 mg/kg

Component (Benzyl dimethylamine) – LD50, rabbit (male), 1477 mg/kg

Acute inhalation Toxicity:

Product – Excessive exposures may cause irritation to upper respiratory tract (nose and throat). May cause central nervous system depression.

Symptoms may include headaches, dizziness and drowsiness, progressing to incoordination and unconsciousness. Prolonged excessive exposure may cause serious adverse effects, even death.

Component (Benzyl Alcohol) – LC50, ratm 4h, vapor, 11 mg/l

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – LC50, rat, 4h, dust/mist, > 5.01 mg/l

Component (1,3-Benzenedimethanamine) – Prolonged excessive exposure may cause serious adverse effects, even death. Excessive exposure may cause severe irritation to upper respiratory tract (nose and throat) and lungs. Salivation. LC50, rat, 4h, dust/mist, 1.34 mg/l

Component (4-Nonylphenol, branched) – LC50, mouse, female, vapor, > 3.636 mg/l

Component (Benzyl dimethylamine) – LC50, rat (male and female), 4h, vapor, 2.05 mg/l

Skin Corrosion/Irritation:

Product – Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Component (4-Nonylphenol, branched) - Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation:

Product – May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Vapor may cause lacrimation (tears).

Component (4-Nonylphenol, branched) - May cause irreversible eye damage.

Sensitization:

Product – Skin contact may cause an allergic reaction. A component in this mixture has caused allergic skin reactions in humans. Contains component(s) which have caused allergic skin sensitization in guinea pigs. Contains component(s) which have demonstrated the potential for contact allergy in mice.

Component (4-Nonylphenol, branched) - Does not cause skin sensitization, guinea pig (OECD 406). Causes severe skin burns and eye damage.

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STOT – single exposure:

Product – Evaluation of available data suggests that this material is not an STOT-SE toxicant.

STOT – repeated exposure:

Product – For the component(s) tested: In animals, effects have been reported on the following organs: Central nervous system, muscles, thymus, urinary tract, respiratory tract, liver, kidney, gastrointestinal tract, testes.

Component (4-Nonylphenol, branched) - Rat, male and female, NOAEL 100 mg/kg, ingestion, 672h, 7d, subacute toxicity. Rat, male and female, NOAEL 50 mg/kg, ingestion, 2160h, 7d, subchronic toxicity. Causes severe skin burns and eye damage.

Carcinogenicity:

Product – No component(s) of this mixture are known to cause cancer in laboratory animals.

Teratogenicity:

Based on information for component(s): Has caused birth defects in laboratory animals only at doses toxic to the mother. Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Component (4-Nonylphenol, branched) - Rat, female, oral, 75 mg/kg body weight (OECD 414), No observed adverse effect level, no teratogenic effects.

Reproductive toxicity:

Product – In a three-generation reproduction study in rats, nonylphenol did not interfere with standard reproductive parameters. However, some additional endpoints which are considered markers of potential reproductive toxicity were affected at higher doses that produced systemic toxicity to the parent animals. Contains component(s) which did not interfere with fertility in animal studies. Contains component(s) which did not interfere with reproduction in animal studies.

Component (4-Nonylphenol, branched) - Suspected human reproductive toxicant. Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

Mutagenicity:

Product - Contains component(s) which were negative in some in vitro genetic toxicity studies and positive in others. Contains component(s) which were negative in in vitro genetic toxicity studies. Contains component(s) which were negative in animal genetic toxicity studies.

Aspiration Hazard:

Product – Based on physical properties, not likely to be an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Acute Toxicity to fish:

Component (Benzyl Alcohol) – Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 > 100 mg/l in the most sensitive species tested). LC50, pimephales promelas / fathead minnow, static, 96h, 460 mg/l, method not specified.

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – Material is slightly toxic to aquatic organisms on an acute basis (LC/EC between 10 and 100 mg/l in the most sensitive species tested). LC50, Leuciscus idus / golden orfe, semi-static test, 96h, 110 mg/l.

Component (1,3-Benzenedimethanamine) – Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/l in the most sensitive species tested). LC50, Leuciscus idus / golden orfe, 96h, 75 mg/l.

Component (1,3-Benzenedimethanamine, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]) – Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/l in the most sensitive species tested). LL50, rainbow trout / oncorhynchus mykiss, static test, 96h, 64 mg/l (OECD 203).

Component (4-Nonylphenol, branched) – Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/l in the most sensitive species tested). LC50, pimephales promelas / fathead minnow, flow-through test, 96h, 0.135mg/l (OECD 203).

Component (Salicylic acid) – Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/l in the most sensitive species tested). LC50, emerald shiner / notropis atherinoides, 96h, > 150 mg/l. LC50, leuciscus idus / golden orfe, static test, 48h, 90 mg/l.

Component (Benzyl dimethylamine) – Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/l in the most sensitive species tested). May increase pH of aquatic systems to > pH 10 which may be toxic to aquatic organisms. LC50, pimephales promelas / fathead minnow, flow-through test, 96h, 37.8 mg/l (OECD 203).

Acute Toxicity to aquatic invertebrates:

Component (Benzyl Alcohol) – EC50, daphnia magna / water flea, 48h, 230 mg/l (OECD 202)

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – EC50, daphnia magna / water flea, static, 48h, 23 mg/l (OECD 202)

Component (1,3-Benzenedimethanamine) – EC50, daphnia magna / water flea, static test, 48h, 15.2 mg/l (OECD 202)

Component (1,3-Benzenedimethanamine, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]) – EL50, daphnia magna / water flea, static test, 48h, 1.46 mg/l (OECD 202).

Component (4-Nonylphenol, branched) – EC50, daphnia magna / water flea, 48h, 0.14 mg/l (Directive 84/449/EEC, C.2)

Component (Salicylic acid) – LC50, daphnia magna / water flea, 24h, 105-230 mg/l

Component (Benzyl dimethylamine) – EC50, daphnia magna / water flea, static test, 48h, > 100 mg/l (OECD 202)

Acute toxicity to algae/aquatic plants:

Component (Benzyl Alcohol) – EC50, pseudokirchneriella subcapitata / green algae, static, 72h, growth rate, 770 mg/l (OECD 201).

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – EbC50, alga Scenedesmus sp., 72h, biomass, 37 mg/l.

Component (1,3-Benzenedimethanamine) – EC50, alga Scenedesmus sp., static test, 72h, biomass, 12 mg/l (OECD 201)

Component (1,3-Benzenedimethanamine, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]) – EL50, pseudokirchneriella subcapitata / green algae, static test, 72h, cell yield inhibition, > 30 mg/l (OECD 201)

Component (4-Nonylphenol, branched) – EC50, alga scenedesmus sp., 72h, biomass, 1.3 mg/l

Component (Benzyl dimethylamine) – ErC50, desmodesmus subspicatus / green algae, static test, 72h, growth rate inhibition, 1.34 mg/l

Toxicity to bacteria:

Component (Benzyl Alcohol) – EC50, activated sludge, respiration inhibition, 49h, respiration rates., 2,100 mg/l (OECD 209)

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – EC10, bacteria, 18h, 1120 mg/l

Component (1,3-Benzenedimethanamine, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]) – EC50, activated sludge, aerobic, 3h, respiration rates., 888.9 mg/l, activated sludge test (OECD 209)

Component (Salicylic acid) – EC50, activated sludge, 3h > 3200 mg/l (OECD 209)

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Component (Benzyl dimethylamine) – EC50, pseudomonas putida, growth inhibition, 17h, growth inhibition, 534 mg/l (DIN 38412)

Chronic toxicity to fish:

Component (4-Nonylphenol, branched) – NOEC, pimephales promelas, flow-through test, 33d, survival, 0.0074 mg/l.

Chronic toxicity to aquatic invertebrates:

Component (Benzyl Alcohol) – NOEC, daphnia magna, semi-static test, 21d, 51 mg/l

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – NOEC, daphnia magna, 21d, number of offspring, 3mg/l. LOEC, daphnia magna, 21d, number of offspring, 10 mg/l. MATC (maximum acceptable toxicant level), daphnia magna, 21d, number of offspring, 5.5 mg/l.

Component (1,3-Benzenedimethanamine) – NOEC, daphnia magna, 21d, number of offspring, 4.7 mg/l.

Component (4-Nonylphenol, branched) – NOEC, daphnia magna, semi-static test, 21d, number of offspring, 0.024 mg/l

Component (Benzyl dimethylamine) – NOEC, daphnia magna, semi-static test, 21d, number of offspring, 0.789 mg/l. LOEC, daphnia magna, semi-static test, 21d, number of offspring, 2.622 mg/l.

Persistence and degradability:

Component (Benzyl Alcohol) – Material is readily biodegradable (92-96%, 14d, OECD 301C). Theoretical oxygen demand: 2.52 mg/mg.

Photodegradation: Half-life (indirect photolysis), OH radicals, 1.296d

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – Material is expected to biodegrade very slowly in the environment (8%, 28d, OECD 301A). (42%, 3h, OECD 303A). Theoretical oxygen demand: 3.38 mg/mg. Photodegradation: half-life (indirect photolysis), OH radicals, 0.126d.

Component (1,3-Benzenedimethanamine) – Material is inherently biodegradable (22%, 28d (OECD, 302C). (49%, 28d, OECD 301B). Theoretical oxygen demand 3.17 mg/mg. Photodegradation: half-life (indirect photolysis), OH radicals, 0.15d.

Component (1,3-Benzenedimethanamine, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]) – Material is not readily biodegradable (0%, 28d, OECD 301F).

Component (4-Nonylphenol, branched) – Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. Theoretical oxygen demand 3.29 mg/mg. Photodegradation: half-life (indirect photolysis), OH radicals, 0.207d.

Component (Salicylic acid) – Material is readily biodegradable (88.1%, 14, OECD 301C). Theoretical oxygen demand 1.62 mg/mg. Photodegradation: half-life (indirect photolysis), OH radicals, 0.823d.

Component (Benzyl dimethylamine) – Material is expected to biodegrade very slowly in the environment (0-2%, 28d, OECD 301C). (90-100% 13d, OECD 302B). Theoretical oxygen demand 3.20 mg/mg. Photodegradation: Half-life (indirect photolysis), OH radicals, 0.130d.

Bioaccumulative potential:

Component (Benzyl Alcohol) – Bioconcentration potential is low (BCF < 100 or Log Pow < 3 [1.10 measured])

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – Bioconcentration potential is low (BCF < 100 or Log Pow < 3 [0.79 measured])

Component (1,3-Benzenedimethanamine) – Bioconcentration potential is low (BCF < 100 [<3 cyprinus carpio / carp, 42d measured] or Log Pow < 3 [0.18 (OECD 107)])

Component (1,3-Benzenedimethanamine, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]) – Bioconcentration potential is low (BCF < 100 [4.77 fish, estimated] or Log Pow < 3 [3.6 @ 25C])

Component (4-Nonylphenol, branched) – Bioaccumulation potential is high (BCF > 3000 [271 pimephales promelas / fathead minnow, 20d, measured] or Log Pow between 5 and 7 [5.4 at 23C (OECD 117)])

Component (Salicylic acid) – Bioaccumulation potential is low (BCF < 100 or Log Pow < 3 [2.26 measured])

Component (Benzyl dimethylamine) – Bioaccumulation potential is low (BCF < 100 [22 cyprinus carpio / carp, 42d measured] or Low Pow < 3 [1.98 measured])

Mobility in soil:

Component (Benzyl Alcohol) – Potential for mobility in soil is very high (Koc between 0 and 50, = 16, estimated). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Component (3-Aminomethyl-3,5,5-trimethylcyclohexylamine (isophoronediamine)) – Potential for mobility in soil is medium (Koc between 150 and 500, = 340, estimated). Given its very low Henry's constant, volatilization from natural bodies or water or moist soil is not expected to be an important fate process.

Component (1,3-Benzenedimethanamine) – Potential for mobility in soil is low (Koc between 500 and 2000, = 910 estimated). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Component (1,3-Benzenedimethanamine, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]) – Expected to be relatively immobile in soil (Koc > 5000, (OECD 121))

Component (4-Nonylphenol, branched) – Expected to be relatively immobile in soil (Koc > 5000, estimated)

Component (Salicylic acid) – Potential for mobility in soil is very high (Koc between 0 and 50, = 24 estimated). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Component (Benzyl dimethylamine) – Potential for mobility in soil is low (Koc between 500 and 2000, = 630 estimated)

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: UN2735, Amines, liquid, corrosive, n.o.s., (CONTAINS isophoronediamine, 1,3-benzenedimethanamine), 8, PG III, MARINE POLLUTANT

IMO/IMDG: UN2735, Amines, liquid, corrosive, n.o.s., (CONTAINS isophoronediamine, 1,3-benzenedimethanamine), 8, PG III, MARINE POLLUTANT

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Standard:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

CERCLA Reportable Quantity:

Component of 4-Nonylphenol, branched (phenol CAS# 108-95-2 – RQ 1000# (calculated product RQ exceeds reasonably attainable upper limit))

SARA 311/312:

Acute toxicity (any route of exposure), skin corrosion or irritation, serious eye damage or eye irritation, reproductive toxicity.

SARA 313:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established.

US Clean Air Act, Section 12 (40 CFR 61):

Component of 4-Nonylphenol, branched (phenol CAS# 108-95-2)

Pennsylvania Worker and Community Right-To-Know Act:

(Benzyl Alcohol CAS# 100-51-6), (1,3-Benzenedimethanamine CAS# 1477-55-0)

California Prop 65:

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm at levels which would require a warning under the statute.

TSCA Inventory:

All components of this product are in compliance with the inventory listing requirements.

TSCA – 5(a) Significant new use rule list of chemicals:

Component (4-Nonylphenol, branched) CAS# 84852-15-3

TSCA Section 12(b) Export notification (40 CFR 707, Subpt D):

Component (4-Nonylphenol, branched) CAS# 84852-15-3

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