ELANTAS Electrical Insulation

SAFETY DATA SHEET

Revision Number 1.1 Revision Date 10-Aug-2017

Section 1: IDENTIFICATION

Product identifier

Product Name CONAPOXY® FR-1820 Part A Resin

Other means of identification

Product Code(s) 0036002

Recommended use of the chemical and restrictions on use

Recommended Use Potting and encapsulating

Details of the supplier of the safety data sheet

Manufacturer Address
ELANTAS PDG, INC.
1405 Buffalo Street
Olean, New York 14760

Emergency telephone number

Company Phone Number (716) 372-9650

E-mail address Ross.Roberson@altana.com

Emergency Telephone INFOTRAC - 1-800-535-5053

Section 2: HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1B
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Danger

Hazard statements
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause genetic defects
May cause cancer

Appearance Viscous liquid **Physical state** Liquid **Odor** Characteristic

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Information
May be harmful if swallowed

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Chemical nature Mixture.

Chemical name	CAS No.	Weight-%	Trade secret
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymeth	25085-99-8	30 - 40	*

ylene)]bis-, homopolymer			
Neopentyl glycol diglycidyl ether	17557-23-2	5 - 10	*
Kaolin	1332-58-7	1 - 5	*
Triethyl phosphate	78-40-0	1 - 5	*
Carbon black	1333-86-4	0.1 - 1	*
Solvent naphtha (petroleum), light arom.; low boiling point naphtha - unspecified	64742-95-6	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical No information available.

Hazardous combustion products Carbon monoxide. Nitrogen oxides (NOx).

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of waterways. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Reference to other sections See section 13 for more information.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Contents under pressure. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. See section 8 for more information. Take precautionary measures against static discharges. S53 - Avoid exposure - obtain special instructions before use. Dispose of in accordance with local regulations.

Conditions for safe storage, including any incompatibilities

Storage Conditions Observe technical data sheet. P210 - Keep away from heat. - No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Observe all label precautions until container is cleaned, reconditioned or destroyed.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
Triethyl phosphate 78-40-0	No data available	-	7.45 mg/m³ TWA
Carbon black 1333-86-4	TWA: 3 mg/m³ inhalable particulate matter	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls	Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	Face protection shield. Tight sealing safety goggles.
Hand protection	Impervious gloves.
Skin and body protection	Impervious clothing. Wear suitable protective clothing.
Respiratory protection	Use appropriate respiratory protection.
Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Viscous liquid
Color	black
Odor	Characteristic
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range		None known
Flash point	> 100 °C / 212 °F	Tag Closed Cup
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.55	
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available

Bulk density No information available

Section 10: STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Acids. Bases. Amines. Oxidizing agent.

Hazardous decomposition products Carbon oxides. oxides of phosphorus. Phenols.

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 4,692.00 mg/kg

Unknown acute toxicity No information available

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Neopentyl glycol diglycidyl ether 17557-23-2	= 4500 mg/kg (Rat)	-	-
Triethyl phosphate 78-40-0	1100 - 1600 mg/kg (Rat) = 1165 mg/kg (Rat)	-	-
Carbon black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
Solvent naphtha (petroleum), light arom.; low boiling point naphtha - unspecified 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Carbon black 1333-86-4	A3	Group 2B	-	X

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target organ effects Respiratory system, Gastrointestinal tract (GI).

Subchronic toxicity Not applicable.

Neurological effects None known.

Other adverse effects No information available.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity No information available.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Carbon black 1333-86-4	-	-	-	5600: 24 h Daphnia magna mg/L EC50
Solvent naphtha (petroleum), light arom.; low boiling point naphtha - unspecified 64742-95-6	-	9.22: 96 h Oncorhynchus mykiss mg/L LC50	-	6.14: 48 h Daphnia magna mg/L EC50

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Bioconcentration factor (BCF) No data available

Component Information

Chemical name	Partition coefficient
Triethyl phosphate 78-40-0	1.11

Mobility	No information available.
Other adverse effects	No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Should not be released into the environment. Dispose of in accordance with local regulations.
Contaminated packaging	Do not reuse empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty remaining contents.
US EPA Waste Number	U239

Section 14: TRANSPORT INFORMATION

DOT

UN/ID no.	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [neopentyl glycol diglycidyl ether]
Hazard Class	9
Packing Group	III

IATA

UN/ID no.	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [neopentyl glycol diglycidyl ether]
Hazard Class	9
Packing Group	III

IMDG

UN/ID no.	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [neopentyl glycol diglycidyl ether]
Hazard Class	9
Packing Group	III

Section 15: REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Per the June 13, 2016 Federal Register notice, EPA harmonized the EPCRA 311/312 hazard categories with the 2012 OSHA hazard communication standard for classifying and labeling chemicals (i.e. GHS). Please refer to Section 2 of the SDS to identify the appropriate hazard categories for reporting purposes.

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Carbon black - 1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations

US State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Kaolin 1332-58-7	X	X	X
Carbon black 1333-86-4	X	X	X

U.S. EPA Label Information

Section 16: OTHER INFORMATION

NFPA **Health hazards** 2 **Flammability** 1 **Instability** 0 **HMIS**
Chronic Hazard Star Legend ** = Chronic Health Hazard*

Revision Date 10-Aug-2017

Revision Note
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

ELANTAS Electrical Insulation

SAFETY DATA SHEET

Revision Number 1.1 Revision Date 08-Nov-2017

Section 1: IDENTIFICATION

Product identifier

Product Name CONAPOXY ® FR-1820 Part B Hardener

Other means of identification

Product Code(s) 0036004

Recommended use of the chemical and restrictions on use

Recommended Use Potting and encapsulating

Details of the supplier of the safety data sheet

Manufacturer Address
ELANTAS PDG, INC.
1405 Buffalo Street
Olean, New York 14760

Emergency telephone number

Company Phone Number (716) 372-9650

E-mail address Ross.Roberson@altana.com

Emergency Telephone INFOTRAC - 1-800-535-5053

Section 2: HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 1B

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Danger

Hazard statements
Harmful if swallowed
Harmful in contact with skin
Causes severe skin burns and eye damage
May cause an allergic skin reaction

Causes damage to the lungs through prolonged or repeated exposure if inhaled

Appearance Liquid **Physical state** Liquid **Odor** amine

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
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
Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation or rash occurs: Get medical advice/attention
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
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Do NOT induce vomiting

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Information
Not applicable

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Chemical nature Mixture.

Chemical name	CAS No.	Weight-%	Trade secret
4-Nonyl-phenol, (branched)	84852-15-3	50 - 60	*
Aminoethylpiperazine	140-31-8	30 - 40	*
4,4'-isopropylidenediphenol	80-05-7	1 - 5	*
Diethylenetriamine	111-40-0	0.1 - 1	*
2-(2-aminoethylamino)ethanol	111-41-1	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical No information available.

Hazardous combustion products Carbon monoxide. Nitrogen oxides (NOx).

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of waterways. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Reference to other sections See section 13 for more information.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Contents under pressure. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. See section 8 for more information. Take precautionary measures against static discharges. S53 - Avoid exposure - obtain special instructions before use. Dispose of in accordance with local regulations.

Conditions for safe storage, including any incompatibilities

Storage Conditions Observe technical data sheet. P210 - Keep away from heat. - No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Observe all label precautions until container is cleaned, reconditioned or destroyed.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
Diethylenetriamine 111-40-0	TWA: 1 ppm S*	(vacated) TWA: 1 ppm (vacated) TWA: 4 mg/m^3	
2-(2-aminoethylamino)ethanol 111-41-1	No data available	(vacated) TWA: 0.1 mg/m^3 Formaldehyde	

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Face protection shield. Tight sealing safety goggles.

Hand protection Impervious gloves.

Skin and body protection Impervious clothing. Wear suitable protective clothing.

Respiratory protection Use appropriate respiratory protection.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Color	amber
Odor	amine
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range		None known
Flash point	> 100 °C / 212 °F	CC (closed cup)
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	0.954	
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point No information available

Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

Section 10: STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Epoxides, acrylates, strong oxidizers, acids, aldehydes, acetones, organic halides.

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx). Ammonia.

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	850.00 mg/kg
ATEmix (dermal)	1,588.00 mg/kg

Unknown acute toxicity No information available

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
4-Nonyl-phenol, (branched) 84852-15-3	= 1300 mg/kg (Rat)	= 2000 mg/kg (Rabbit)	-
Aminoethylpiperazine 140-31-8	= 2140 µL/kg (Rat)	= 880 µL/kg (Rabbit)	-
4,4'-isopropylidenediphenol 80-05-7	= 3300 mg/kg (Rat)	= 3 mL/kg (Rabbit)	> 0.17 mg/L (Rat) 6 h
Diethylenetriamine 111-40-0	= 1080 mg/kg (Rat)	= 672 mg/kg (Rabbit)	= 70 mg/L (Rat) 4 h

2-(2-aminoethylamino)ethanol 111-41-1	= 2000 mg/kg (Rat)	= 3560 µL/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target organ effects No information available.

Subchronic toxicity Not applicable.

Neurological effects None known.

Other adverse effects No information available.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity No information available.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
4-Nonyl-phenol, (branched) 84852-15-3	0.36 - 0.48: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 1.3: 72 h Desmodesmus subspicatus mg/L EC50 0.16 - 0.72: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	0.1351: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.135: 96 h Pimephales promelas mg/L LC50 flow-through	-	0.14: 48 h Daphnia magna mg/L EC50
Aminoethylpiperazine 140-31-8	495: 72 h Pseudokirchneriella subcapitata mg/L EC50	1950 - 2460: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Poecilia reticulata mg/L LC50 semi-static 100: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	-	32: 48 h Daphnia magna mg/L EC50
4,4'-isopropylidenediphenol	2.5: 96 h Pseudokirchneriella	4.0 - 5.5: 96 h Pimephales promelas	-	9.2 - 11.4: 48 h Daphnia magna mg/L EC50 Static

80-05-7	subcapitata mg/L EC50	mg/L LC50 static 3.6 - 5.4: 96 h Pimephales promelas mg/L LC50 flow-through 4: 96 h Oncorhynchus mykiss mg/L LC50 9.9: 96 h Brachydanio rerio mg/L LC50 static		10.2: 48 h Daphnia magna mg/L EC50 3.9: 48 h Daphnia magna mg/L EC50
Diethylenetriamine 111-40-0	345.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 592: 96 h Desmodesmus subspicatus mg/L EC50 1164: 72 h Pseudokirchneriella subcapitata mg/L EC50	1014: 96 h Poecilia reticulata mg/L LC50 semi-static 248: 96 h Poecilia reticulata mg/L LC50 static 430: 96 h Leuciscus idus mg/L LC50 semi-static	-	37: 24 h Daphnia magna mg/L EC50 16: 48 h Daphnia magna mg/L EC50
2-(2-aminoethylamino)ethanol 111-41-1	210: 72 h Desmodesmus subspicatus mg/L EC50	728: 96 h Pimephales promelas mg/L LC50	-	22: 48 h Daphnia magna mg/L EC50

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Bioconcentration factor (BCF) No data available

Component Information

Chemical name	Partition coefficient
Aminoethylpiperazine 140-31-8	-1.48
4,4'-isopropylidenediphenol 80-05-7	2.2
Diethylenetriamine 111-40-0	-1.3
2-(2-aminoethylamino)ethanol 111-41-1	-1.46

Mobility No information available.

Other adverse effects No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations.

Contaminated packaging Do not reuse empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty remaining contents.

US EPA Waste Number Not applicable.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as

a hazardous waste.

Chemical name	California Hazardous Waste Status
Diethylenetriamine 111-40-0	Toxic

Section 14: TRANSPORT INFORMATION

DOT

UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, n.o.s. [4-Nonyl-phenol, Aminoethylpiperazine]
Hazard Class	8
Packing Group	II

IATA

UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, n.o.s. [4-Nonyl-phenol, Aminoethylpiperazine]
Hazard Class	8
Packing Group	II

IMDG

UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, n.o.s. [4-Nonyl-phenol, Aminoethylpiperazine]
Hazard Class	8
Packing Group	II

Section 15: REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Per the June 13, 2016 Federal Register notice, EPA harmonized the EPCRA 311/312 hazard categories with the 2012 OSHA hazard communication standard for classifying and labeling chemicals (i.e. GHS). Please refer to Section 2 of the SDS to identify the appropriate hazard categories for reporting purposes.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
4,4'-isopropylidenediphenol - 80-05-7	Female Reproductive

U.S. State Right-to-Know Regulations

US State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Aminoethylpiperazine 140-31-8	X	X	X
4,4'-isopropylidenediphenol 80-05-7	X	X	X
Benzyl alcohol 100-51-6	-	X	X
Benzyl dimethylamine 103-83-3	X	-	-
Diethylenetriamine 111-40-0	X	X	X
2-(2-aminoethylamino)ethanol 111-41-1	X	X	X

U.S. EPA Label Information

Section 16: OTHER INFORMATION

NFPA **Health hazards** 3 **Flammability** 1 **Instability** 0 **HMIS**
Chronic Hazard Star Legend ** = Chronic Health Hazard*

Revision Date 08-Nov-2017

Revision Note
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet