SECTION 1. IDENTIFICATION

1.1 PRODUCT IDENTIFIER

PRODUCT FORM: Mxxture

PRODUCT NAME: NSF Polymers CC-OG

SYNONYMS: Resin, Polyurethane resin

1.2 INTENDED USE OF THE PRODUCT

Use in conjunction with isocyanate component. Spray Foam Insulation for commercial and residential use.

1.3 NAME, ADDRESS, AND TELEPHONE OF THE RESPONSIBLE PARTY COMPANY

NSF Polymers
17598 N IH-35, West, TX 76691
877-NSF-POLY
www.nsfpolymers.com

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Number: CHEMTREC: 1-703-741-5970

SECTION 2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS-US Classification

Acute Toxicity, Oral: 2	H302
Skin Corrosion/Irritation: 1B	H314
Serious Eye Damage/Irritation: 2	H319
Specific Target Organ Toxicity : 2	H373

2.2 LABEL ELEMENTS

GHS-US Labeling

HAZARD PICTOGRAMS (GHS-US)	
SIGNAL WORD (GHS-US)	Danger
HAZARD STATEMENTS (GHS-US)	H302 - Harmful if swallowed. H314 Causes severe skin burns and eye damage. H319 - Causes serious eye damage H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral route of exposure)

Full text of hazard classes and H-statements: see section 16

PRECAUTIONARY STATEMENTS (GHS-US)

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

P303+P361 + P353 - IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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 - Immediately call a doctor, a POISON CENTER

P330 - Rinse mouth.

P363 - Wash contaminated clothing before reuse

P405 - Store locked up.

P501 - Dispose of contents I container in accordance with current legislation.

2.3 OTHER HAZARDS

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4 UNKNOWN ACUTE TOXICITY (GHS-US)

No Available Data

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCE

Not Applicable

CHEMCIAL NAME	CAS NUMBER	%*
Proprietary polyester resin (75-95%) 2,2'-oxybisethanol (10-15%) diethylene glycol, dioxane (0.1-0.5%)	Not Available 111-46-6 123-91-1	10-20
Oxirane, 2-methyl-, polymer with oxirane ether with 2,6-bis[[bis-(2- hydroxyethyl)amino]methyl]-4- branched nonylphenol	940912-28-7 34354-45-5	10-20
2-Dimethylaminoethanol	108-01-0	1-5
Bis(3-dimethylaminopropyl)-n,n-dimethylpropanediamine	33329-35-0	2-12
Tris(1-chloro-2-propyl) phosphate	13674-84-5	10-20
Propane, 1, 1, 1, 2, 3, 3, 3-heptafluoro- (5-10%)	431-89-0	2-12
Tertiary amine catalyst (>25%) ethylene glycol (>25%)	Not Available 107-21-1	0-7

Full text of H-phrases: see section 16

*The exact percentage of composition has been withheld as a trade secret [29 CFR 1910.1200].

SECTION 4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

First-aid measures General: Never give anything by mouth to an unconscious person.

If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: When symptoms occur: go into open air and entilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

First-aid Measures After Eye Contact: Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS BOTH ACUTE AND DELAYED

Symptoms/Injuries: Causes skin irritation. Causes serious eye damage.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation. Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects

Chronic Symptoms: None expected under normal conditions of use.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3 ADVICE FOR FIREFIGHTERS

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO2). Phosphorus oxides. Corrosive vapors.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

General Measures: Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing.

6.1.1 FOR NON-EMERGENCY PERSONNEL

Protective Equipment: Use appropriate personal protective equipment (PPE).
Emergency Procedures: Evacuate unnecessary personnel.

6.1.2 FOR EMERGENCY PERSONNEL

Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2 ENVIRONMENTAL PRECAUTIONS

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe vapors, fumes, mist, or spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Obtain special instructions before use.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Technical Measures: Comply with applicable regulations.
Storage Conditions: Keep container closed when not in use. Sto in a dry, cool place. Keep/Store away from direct sunlight, extremely or low temperatures and incompatible materials. Store locked up/in a secure area.
Incompatible Materials: Strong acids, strong bases, strong oxidizers. reactive metals (Al, K, Zn ...). Isocyanates.

7.3 SPECIFIC END USE(S)

NSF POLYMERS CC-OG insulation, for professional use only.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Diethylene glycol (111-46-6)

USA AIHA	WEEL TWA (mg/m³)	10 mg/m³

1,4-Dioxane (123-91-1)

USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route,Confirmed Animal Carcinogen with Unknown Relevance to Humans 3.6 mg/m³
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	3.6 mg/m³
USA NIOSH	NIOSH REL (ceiling) (ppm) US	1 ppm
USA IDLH	IDLH (ppm)	500 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	360 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
USA OSHA	Limit value category (OSHA)	prevent or reduce skin absorption

Triethyl phosphate (78-40-0)

USA AIHA	WEEL TWA (mg/m³)	7.45 mg/m³

cis-1,1,1,4,4,4-Hexafluoro-2-butene (692-49-9)

USA AIHA	WEEL TWA (mg/m³)	3350 mg/m³
USA AIHA	WEEL TWA (ppm)	500 ppm

8.2 EXPOSURE CONTROLS

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles.

Materials for Protective Clothing: Chemically resistant materials and fabrics.
Hand Protection: Wear protective gloves.
Eye and Face Protection: Chemical safety goggles.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: If exposure limits are exceeded or irritation is experienced, Approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
Other Information: When using, do not eat, drink or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Light Brown
Odor	Slight Anime
Relative Density	1.05-1.09
Viscosity	300-350

9.2 OTHER INFORMATION

No Additional Information available

SECTION 10. STABILITY INFORMATION

10.1 REACTIVITY:
Hazardous reactions will not occur under normal conditions.

10.2 CHEMICAL STABILITY:
Stable under recommended handling and storage conditions (see section 7).

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:
Hazardous polymerization will not occur.

10.4 CONDITIONS TO AVOID:
Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5 INCOMPATIBLE MATERIALS:
Strong acids, strong bases, strong oxidizers. reactive metals (Al, K, Zn ...). Isocyanates.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon oxides (CO, CO2). Phosphorus oxides. Nitrogen oxides. Hydrochloric acid fumes may be generated. Hydrogen bromide. Phosphine. aldehydes, ketones. Acrid smoke and irritating fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Toxicity: Not Classified

Diethylene glycol (111-46-6)

LD50 Oral Rat	1120 mg/kg
LD50 Dermal Rabbit LC50	11890 mg/kg
Inhalation Rat	> 4600 mg/m³ (Exposure time: 4 h)
ATE (Dermal)	11,890.00 mg/kg body weight

1,4-Dioxane (123-91-1)

LD50 Oral Rat	5170 mg/kg
LD50 Dermal Rabbit	7600 mg/kg
LC50 Inhalation Rat	46 mg/l (Exposure time: 2
LC50 Inhalation Rat	h) 32.5 mg/l/4h

Triethyl phosphate (78-40-0)

LD50 Oral Rat	1100 - 1600 mg/kg
LD50 Dermal Rabbit	>20 g/kg
LC50 Inhalation Rat	> 8187 mg/m³ (Exposure time: 4 h)

1,3-Propanediamine, N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethyl- (33329-35-0)

ATE (Oral)	500.00 mg/kg body weight

cis-1,1,1,4,4,4-Hexafluoro-2-butene (692-49-9)

LC50 Inhalation Rat	> 690 mg/l/4h

1,2-Propanediol, polymer with ethyloxirane and oxirane, potassium salt (134737-27-2)

ATE (Oral)	500.00 mg/kg body weight

Skin Corrosion/Irritation: Causes skin irritation.
Serious Eye Damage/Irritation: Causes serious eye damage.
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Suspected of causing cancer.

1,4-Dioxane (123-91-1)

IARC group	2B
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.
Specific Target Organ Toxicity (Single Exposure): Not classified
Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.
Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.
Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.
Chronic Symptoms: Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Suspected of causing cancer.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

Ecology-General: Harmful to aquatic life with long lasting effects

Diethylene glycol (111-46-6)

LC50 Fish 1	75200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	84000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

1,4-Dioxane (123-91-1)

LC50 Fish 1	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	163 mg/l (Exposure time: 48 h - Species: water flea [Static])
LC50 Fish 2	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [semi-static])

2-Propanol, 1-chloro-, phosphate (3:1) (13674-84-5)

LC50 Fish 1	56.2 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	63 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	98 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
ErC50 (Algae)	82 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata)
NOEC Chronic Algae	6 mg/l

2-(Dimethylamino)ethanol (108-01-0)

LC50 Fish 1	81 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	98.77 mg/l (Exposure time: 48 h - Species: Daphnia magna)
ErC50 (Algae)	35 mg/l

12.2 PERSISTENCE AND DEGRADABILITY

Persistence and Degradability: May cause long-term adverse effects in the environment.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulative Potential	Not established

Diethylene glycol (111-46-6)

BCF Fish 1	100 - 180
Log Pow	-1.98 (at 25 °C)

1,4-Dioxane (123-91-1)

BCF Fish 1	0.2 - 0.7
Log Pow	-0.42

Triethyl phosphate (78-40-0)

Log Pow	0.8 - 1.11

2-Propanol, 1-chloro-, phosphate (3:1) (13674-84-5)

BCF Fish 1	1.9 - 4.6
Log Pow	2.59

2-(Dimethylamino)ethanol (108-01-0)

Log Pow	-0.55 (at 23 °C)

12.4 MOBILITY IN SOIL

No additional information available

12.5 OTHER ADVERSE EFFECTS

Other Adverse Effects: This product may degrade to yield endocrine disruptor(s).
Other Information: Avoid release to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.
Ecology- Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14. TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1 IN ACCORDANCE WITH DOT

Not regulate except in bulk. Bulk containers (>5,000 lbs) must be transported as:
UN3082, Environmentally Hazardous Substance, Liquid, NOS, Class 9, PGIII
Proper Shipping Name: UN3083, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 1,4-Dioxane), 9, PG III
Hazard Class: 9
Identification Number: NA3082
Label Codes: 9
Packing Group: III
ERG Number: 171

14.2 IN ACCORDANCE WITH IMDG

Not regulated for transport

14.3 IN ACCORDANCE WITH IATA

Not regulated for transport

SECTION 14. REGULATORY INFORMATION

15.1 US FEDERAL REGULATIONS

NSF CC-DARA-Section 311/312 Hazard Classes
Health hazard: Reproductive toxicity
Health hazard: Specific target organ toxicity (single or repeated exposure)
Health hazard: Skin corrosion or Irritation
Health hazard: Carcinogenicity
Health hazard: Serious eye damage or eye irritation

Diethylene glycol (111-46-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ethylene oxide, polymer with 2,2'-iminodiethanol and propylene oxide (34354-45-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag: XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).

Triethyl phosphate (78-40-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

1,3-Propanediamine, N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethyl- (33329-35-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

1,4-Dioxane (123-91-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

2-Propanol, 1-chloro-, phosphate (3:1) (13674-84-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

cis-1,1,1,4,4,4-Hexafluoro-2-butene (692-49-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
EPA TSCA Regulatory Flag:
P - P - indicates a commenced PMN substance.
S - S - indicates a substance that is identified in a proposed or final Significant New Uses Rule.

2-(Dimethylamino)ethanol (108-01-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 US STATE REGULATIONS

1,4-Dioxane (123-91-1)
U.S. - California - Proposition 65 - Carcinogens List:
WARNING: This product contains chemicals known to the State of California to cure cancer.

Diethylene glycol (111-46-6
U.S. - Pennsylvania - RTK (Right to Know) List

1,4-Dioxane (123-91-1)
U.S. - Massachusetts: Right To Know List
U.S. - New Jersey: Right to Know Hazardous Substance List
U.S. - Pennsylvania: RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania: RTK (Right to Know) - Special Hazardous Substances
U.S. - Pennsylvania: RTK (Right to Know) List

2-(Dimethylamino)ethanol (108-01-0)
U.S. - Massachusetts: Right To Know List
U.S. - New Jersey: Right to Know Hazardous Substance List
U.S. - Pennsylvania: RTK (Right to Know) List

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

DATE OF PREPARATION OR LATEST REVISION: 05/09/2018
OTHER INFORMATION: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

GHS Full Text Phrases

Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Repr. 2	Reproductive toxicity Category 2
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)