SDS: 0074522
Date Prepared: 05/17/2021

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	**MODAFLOW® NSR 100**
Synonyms:	None
Product Description:	Mixture of resin and silica
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Intended/Recommended Use:	Additive

Allnex USA Inc., 9005 Westside Parkway, Alpharetta, Georgia 30009, USA
For Product and all Non-Emergency Information call your local Allnex contact point or contact us at http://www.allnex.com/contact

EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:
+1-866-928-0789 (toll free) or +1-215-207-0061 (Carechem 24 - Allnex29003-NCEC)
See Section 16 for Emergency phone numbers for other regions.

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2. HAZARDS IDENTIFICATION

GHS Classification
Flammable Liquids Hazard Category 3
Acute Toxicity (Inhalation) Hazard Category 4
Specific Target Organ Toxicity - Single Exposure Hazard Category 3

LABEL ELEMENTS

Signal Word
WARNING

Hazard Statements
Flammable liquid and vapor
Harmful if inhaled
May cause drowsiness or dizziness

Precautionary Statements
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/Bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
In case of fire: Use CO2, dry chemical, or foam to extinguish.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Store in a well-ventilated place. Keep cool.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local and national regulations.

Hazards Not Otherwise Classified (HNOC), Other Hazards
Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

Component / CAS No.	%	GHS Classification
2-Heptanone 110-43-0	60 - 80	Flam. Liq. 3 (H226) Acute Tox. 4 (H302) Acute Tox. 4 (H332) STOT SE 3 (H336)

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

4. FIRST AID MEASURES

First-aid Measures

Inhalation:
Remove to fresh air. Treat symptomatically. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Skin Contact:
Wash immediately with plenty of water and soap. Treat symptomatically. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Eye Contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

Ingestion:
Clean mouth with water and drink afterwards plenty of water. Treat symptomatically. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Do NOT induce vomiting.

Most Important Symptoms and Effects, Acute and Delayed
No information available.

Immediate Medical Attention and Special Treatment
Not applicable.

Notes To Physician:
No specific measures have been identified.

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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
Carbon dioxide. dry chemical. Alcohol resistant foam. Water spray.

Unsuitable Extinguishing Media:
full water jet.

Protective Equipment:
Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Special Hazards:
Flammable. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. May be ignited by heat, sparks or flames.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take action to prevent static discharge. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Ventilate the area.

Methods For Containment:
Stop leak if safe to do so. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods For Cleaning Up:
Take action to prevent static discharge. Dam up. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal.

Environmental Precautions:
Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

References to other sections:
See Sections 7, 8 and 13 for additional information.

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7. HANDLING AND STORAGE

HANDLING

Precautions: Keep away from heat, sparks and open flame. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and other equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye/face protection. Use only outdoors or in a well-ventilated area. Avoid breathing vapors or spray mist.

Special Handling Statements: Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharge. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Containers must be bonded and grounded when pouring or transferring material.

STORAGE
Keep container tightly closed and dry in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Storage Temperature: Store at -20 - 35 °C -4 - 95 °F
Reason: Quality.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:
Showers
Eyewash stations
Ventilation systems.

Respiratory Protection:
For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user's own risk assessment.
Recommended respirators include those certified by NIOSH.

Recommended:
Full Face Mask with organic vapor cartridge, Type A filter (BP >65°C)

Eye Protection:
Tight sealing safety goggles.

Skin Protection:
Avoid skin contact. Wear impermeable gloves and suitable protective clothing. Since this product is absorbed through the skin, care must be taken to prevent skin contact and contamination of clothing.

Hand Protection:
Wear protective gloves. Recommendations are listed below. Other protective materials may be used based on user's own risk assessment. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.

Gloves for repeated or prolonged exposure - non exhaustive list:
Polyethylene Nylon (PE), thickness: > 0.062 mm, break through time: > 480 min

Gloves for short term exposure/splash protection - non exhaustive list:
Nitrile rubber (NBR), thickness: 0.38 mm, break through time: up to 60 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not suitable gloves - non exhaustive list:
Natural rubber (NRL), thickness: 0.75 mm
Nitrile rubber (NBR), thickness: 0.12 mm

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing. Use PE gloves as under gloves for

difficult situations like for instance: high exposure, unknown composition or unknown properties of the chemicals.

Additional Advice:
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and after work.

Exposure Limit(s)

110-43-0 2-Heptanone

OSHA (PEL):	100 ppm (TWA)
	465 mg/m³ (TWA)
ACGIH (TLV):	50 ppm (TWA)
Other Value:	Not established

Biological Exposure Limit(s)

No values have been established.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	yellow
Appearance:	low viscosity liquid
Odor:	ketone
Boiling Point:	119 °C 246 °F
Melting Point:	Not available
Vapor Pressure:	Not available
Specific Gravity/Density:	~ 1.0 g/cm³
Vapor Density:	Not available
Percent Volatile (% by wt.):	
pH:	Not available
Saturation In Air (% By Vol.):	Not available
Evaporation Rate:	Not available
Solubility In Water:	Insoluble
Volatile Organic Content:	Not available
Flash Point:	36 °C 97 °F
Flammable Limits (% By Vol):	Not available
Autoignition Temperature:	Not available
Decomposition Temperature:	Not available
Partition coefficient (n-octanol/water):	Not available
Odor Threshold:	Not available
Viscosity (Kinematic):	Not applicable
Viscosity (Dynamic):	Low viscous liquid
Flammability:	Explosion will be caused by solvent contained in the final product.
Oxidizing Properties:	No

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10. STABILITY AND REACTIVITY

Reactivity: No information available

Stability: Stable.

Conditions To Avoid:	Do not expose to flame or sparks. Keep container in a cool, well-ventilated area.
Polymerization:	Will not occur
Conditions To Avoid:	None known
Materials To Avoid:	None known
Hazardous Decomposition Products:	Evolution of flammable gases/vapours.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin, Eyes, Oral, Respiratory System.

Acute toxicity - oral: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Acute toxicity - dermal: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Acute toxicity - inhalation: Harmful if inhaled

Skin corrosion / irritation: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Serious eye damage / eye irritation: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

Respiratory sensitization: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Skin sensitization: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

Carcinogenicity: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Germ cell mutagenicity: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Reproductive toxicity: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure: May cause drowsiness or dizziness.
Specific target organ toxicity (STOT) - repeated exposure: Not Classified. **-** Based on available data and/or professional judgment, the classification criteria are not met.

Aspiration hazard: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

oral	rat	Acute LD50			> 2000	mg/kg
dermal	rabbit	Acute LD50			> 2000	mg/kg
inhalation	rat	Acute LC50	4	hr	~ 16	mg/l (Vapors)

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	dermal	Not irritating
Acute Irritation	eye	Not irritating

ALLERGIC SENSITIZATION

Sensitization	Skin	No data
Sensitization	respiratory	No data

GENOTOXICITY

Assays for Gene Mutations

Ames Salmonella Assay	No data

OTHER INFORMATION

The product toxicity information above has been estimated.

HAZARDOUS INGREDIENT TOXICITY DATA

2-Heptanone has acute oral (rat) and dermal (rat) LD50 values of 1500 mg/kg and > 2000 mg/kg, respectively. During 4 hours of exposure via inhalation mortality was observed at concentrations of 16.7 mg/L (vapours). Direct contact with 2-heptanone caused mild eye and skin irritation when tested in rabbits, but not sufficient for classification. Inhalation of vapors can cause irritation of the eyes and respiratory tract and central nervous system depression.

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12. ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

The ecological assessment for this material is based on an evaluation of its components.
This material is not classified as dangerous for the environment.

RESULTS OF PBT AND vPvB ASSESSMENT

Not determined

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Fish
2-Heptanone (110-43-0)	LC50 = 131 mg/L - Pimephales promelas - 96rs

Component / CAS No.	Toxicity to Water Flea
2-Heptanone (110-43-0)	EC50 = 100 mg/L - Daphnia magna - 48hrs

Component / CAS No.	Toxicity to Algae
2-Heptanone (110-43-0)	EC50 = 98.2 mg/L - Selenastrum capricomutum -

	72hrs NOEC = 42.7 mg/L - Selenastrum capricomutum - 72hrs

Component / CAS No.	Partition coefficient
2-Heptanone (110-43-0)	1.98

13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this SDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this SDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Dangerous Goods? X
PROPER SHIPPING NAME: PAINT RELATED MATERIAL
Hazard Class: 3
Packing Group: III
UN/ID Number: UN1263
Transport Label Required: Flammable Liquid

TRANSPORT CANADA

Dangerous Goods? X
PROPER SHIPPING NAME: PAINT RELATED MATERIAL
Hazard Class: 3
Packing Group: III
UN Number: UN1263
Transport Label Required: Flammable Liquid

ICAO / IATA

Dangerous Goods? X
UN PROPER SHIPPING NAME: PAINT RELATED MATERIAL

Transport Hazard Class: 3
Packing Group: III
UN Number: UN1263
Transport Label Required: Flammable Liquid

IMO

Dangerous Goods? X
UN PROPER SHIPPING NAME: PAINT RELATED MATERIAL
Transport Hazard Class: 3
UN Number: UN1263
Packing Group: III
Transport Label Required: Flammable Liquid

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15. REGULATORY INFORMATION

Inventory Information

United States (USA): One or more components of this product are NOT included on the U.S. Toxic Substances Control Act (TSCA) Inventory. The chemical, physical, and toxicological properties of this material have not been fully investigated. Its handling or use may be hazardous, and it must be used under the supervision of technically qualified individuals. Materials not included on the TSCA Inventory may only be used for research and development (R&D) purposes or in other TSCA exempt activities.

Canada: One or more components of this product are NOT included on the Canadian Domestic Substances List (DSL).

Australia: One or more components of this product have NOT yet been included in the Australian Inventory of Industrial Chemicals (AIIC) or assessed by AICIS.

New Zealand: This product is approved or exempt under the Hazardous Substances and New Organisms (HSNO) Act.

China: One or more components of this product are NOT included on the Chinese (IECSC) inventory.

Japan: One or more components of this product are NOT included on the Japanese (ENCS and/or ISHL) inventories.

Korea: One or more components of this product are NOT included on the Korean (ECL) inventory.

Philippines: One or more components of this product are NOT included on the Philippine (PICCS) inventory.

Taiwan: One or more components of this product are NOT included in the Taiwan chemical substance inventory (TCSI).

OTHER ENVIRONMENTAL INFORMATION
The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

This product does not contain any components regulated under these sections of the EPA

PRODUCT HAZARD CATEGORY UNDER SECTIONS 311 AND 312 OF EPCRA

Physical Hazards
Flammable (gases, aerosols, liquids, or solids)

Health Hazards
Acute toxicity (any route of exposure)
Specific target organ toxicity (single or repeated exposure)

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

Instability: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons for Issue: New Format

Date Prepared: 05/17/2021
Date of last significant revision: 10/15/2020

Component - Hazard Statements
2-Heptanone
H226 - Flammable liquid and vapor.
H302 - Harmful if swallowed.
H332 - Harmful if inhaled.
H336 - May cause drowsiness or dizziness.

Emergency phone numbers for other regions

Asia Pacific
Australia: +61 1800 022 037 (Allnex Australia)
China (PRC): +86(0)532 8388 9090 (NRCC)
India: 000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24)
Indonesia: 007 803 011 0293 (Carechem 24)
Japan: +81 345 789 341 (Carechem 24)
Korea: +82 2 3479 8401 (Carechem 24)
Malaysia: +60 3 6207 4347 (Carechem 24)
New Zealand: +64 0800 803 002 (Allnex New Zealand)
Philippines: +63 2 231 2149 (Carechem 24)
Taiwan: +886 2 8793 3212 (Carechem 24)
Vietnam: +84 8 4458 2388 (Carechem 24)
All Others: +65 3158 1074 (Carechem 24)
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+44 (0) 1235 239 670 (Carechem 24)
Middle East, Africa
+44 (0) 1235 239 671 (Carechem 24)
Latin America
Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)
Chile: +56 2 2582 9336 (Carechem 24)
Mexico and all others: +52-555-004-8763 (Carechem 24)

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Trade/Substance ID:	067671-01
Material Type:	Product
Business Group:	Coating Resins
Department:	Coating Resins - LRA (Additives)
Status:	Active