Safety Data Sheet
NORDOT® Adhesive/Prepolymer #34N-4

SDS Revision Date: 01/01/2019

1. Identification

1.1. Product identifier

Product Identity	NORDOT® Adhesive/Prepolymer #34N-4
Alternate Names	NORDOT® Adhesive/Prepolymer #34N-4

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	Synthetic Surfaces Inc. P.O. Box 241 2450 Plainfield Avenue, Scotch Plains NJ 07076-0241
Emergency	
CHEMTREC (USA)	(800) 424-9300
24 hour Emergency Telephone No.	(908) 233-6803 (908) 377-5112
Customer Service: Synthetic Surfaces, Inc	(908) 233-6803

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Liq. 2;H225	Highly Flammable liquid and vapor.
Skin Irrit. 3;H316	Causes mild skin irritation. (Not adopted by US OSHA)
Eye Irrit. 2;H319	Causes serious eye irritation.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Resp. Sens. 1;H334	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Carc. 2;H351	Suspected of causing cancer.
STOT SE 3;H336	May cause drowsiness or dizziness.
STOT RE 2;H373	May cause damage to organs through prolonged or repeated exposure. Specific Target Organs: (Not Available)
Aquatic Chronic 2;H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Danger

H225 Highly flammable liquid and vapor.
H316 Causes mild skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.
H336 May cause drowsiness and dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
P235 Keep cool.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical / ventilating / light / equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.
P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+313 IF exposed or concerned: Get medical advice / attention.
P314 Get Medical advice / attention if you feel unwell.
P321 Specific treatment (see information on this label).
P333+313 If skin irritation or a rash occurs: Get medical advice / attention.
P337+313 If eye irritation persists: Get medical advice / attention.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P341 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.
P363 Wash contaminated clothing before reuse.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
P391 Collect spillage.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.
P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Acetone **CAS Number: 0000067-64-1**	**26 – 29**	**Flam. Liq. 2;H225** **Eye Irrit. 2;H319** **STOT SE 3;H336**	**[1][2]**
Heptane **CAS Number: 0000142-82-5**	**5 – 6**	**Flam. Liq. 2;H225** **Asp. Tox. 1;H304** **Skin Irrit. 2;H315** **STOT SE 3;H336** **Aquatic Acute 1;H400** **Aquatic Chronic 1;H410**	**[1][2]**
Carbonic acid, dimethyl ester **CAS Number: 0000616-38-6**	**3 – 7**	**Flam. Liq. 2;H225**	**[1]**
Diphenylmethanediisocyanate **CAS Number: 0000101-68-8**	**< 3**	**Carc. 2;H351** **Acute tox. 4;H332** **STOT RE 2;H373** **Eye Irrit. 2;H319** **STOT SE 3;H335** **Skin Irrit. 2;H315** **Resp. Sens. 1;H334** **Skin Sens. 1;H317**	**[1][2]**

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview **EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.
EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).
EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. Headaches, dizziness, nausea, decreased blood pressure, changes in heart rate and cyanosis may result from over-exposure to vapor or skin exposure. Breathing saturated vapors for a few minutes may be fatal. Saturated vapors can be encountered in confined spaces and/or under conditions of poor ventilation. Prolonged inhalation may be harmful.
EFFECTS OF OVEREXPOSURE - INGESTION: This material may be harmful or fatal if swallowed.
EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure may cause lung damage.
Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Inhalation May cause drowsiness or dizziness. May cause allergy or asthma symptoms of breathing difficulties if inhaled.

Eyes Causes serious eye irritation.

Skin May cause an allergic skin reaction. Causes mild skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Foam, dry chemical, CO2

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of carbon and nitrogen, low molecular weight hydrocarbons and organic acids.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Self-contained breathing apparatus

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid open flames or sparks. Provide adequate ventilation. Absorb with sweeping/cleaning compound.

WASTE DISPOSAL METHOD: Follow practice for disposal of flammable organic solvents and be in accordance with Federal, State and Local regulations regarding environmental control.

7. Handling and storage

7.1. Precautions for safe handling

When spraying, use respiratory protection approved for organic vapors, isocyanates and solvents. The TLV for airborne isocyanates is 0.005 ppm. Be vigilant about no smoking, grounding equipment to avoid static electricity, plus avoid other possible sources of ignition.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.
Examination of lung function should be carried out on a regular basis on persons applying this preparation.

Incompatible materials: By fire: CO2, CO, Oxides of Nitrogen

Flammable liquid. Class 1B. Avoid open flames, sparks, static electricity or other sources of ignition. Do not store containers in direct sunlight, hot “desert like” or other high heat conditions as the increase in internal pressure from heat may cause the containers to rupture and/or explode. Provide adequate ventilation.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000067-64-1	Acetone	OSHA	TWA 1000 ppm (2400 mg/m3)STEL 2400 mg/m3
		ACGIH	TWA: 250 ppm STEL: 500 ppm Skin
		NIOSH	250 ppm (590 mg/m3) TWA
		Supplier	No Established Limit
0000101-68-8	Diphenylmethanediisocyanate	OSHA	C 0.2 mg/m3 (0.02 ppm)
		ACGIH	TWA: 0.005 ppm Ceiling: 0.01 ppmSkin, S
		NIOSH	TWA 0.05 mg/m3 (0.005 ppm) C 0.2 mg/m3 (0.020 ppm) [10-minute]
		Supplier	No Established Limit
0000142-82-5	Heptane	OSHA	TWA 500 ppm (2000 mg/m3)
		ACGIH	TWA: 400 ppm STEL: 500 ppm
		NIOSH	TWA 85 ppm (350 mg/m3) C 440 ppm (1800 mg/m3) [15-minute]
		Supplier	No Established Limit
0000616-38-6	Carbonic acid, dimethyl ester	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000067-64-1	Acetone	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000101-68-8	Diphenylmethanediisocyanate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0000142-82-5	Heptane	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000616-38-6	Carbonic acid, dimethyl ester	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory Masks (respirator) - Approved for organic vapors, isocyanates and solvents

Eyes Protective safety glasses recommended

Skin Wear overalls to keep skin contact to a minimum. Chemically resistant rubber or plastic.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Liquid
Odor	Solvent Like Odor
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	-4° F (TCC)
Evaporation rate (Ether = 1)	Slower than ether
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** Not Measured **Upper Explosive Limit:** Not Measured

Vapor pressure (Pa)	Not Measured
Vapor Density	Heavier than air
Specific Gravity	0.98
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (log Pow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
VOC Content (theoretical)	101 g/L (meets SCAQMD Rule 1168 for outdoor installs)
Non-volatile	64 - 66%

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Contact with moisture and other materials which react with isocyanates.

10.5. Incompatible materials

By fire: CO2, CO, Oxides of Nitrogen

10.6. Hazardous decomposition products

Oxides of carbon and nitrogen, low molecular weight hydrocarbons and organic acids.

11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Acetone - (67-64-1)	5,800.00, Rat - Category: NA	7,426.00, Guinea Pig - Category: NA	76.00, Rat - Category: NA	50.10, Rat - Category: NA	No data available
Heptane - (142-82-5)	17,000.00, Rat - Category: NA	3,000.00, Rabbit - Category: 5	103.00, Rat - Category: NA	No data available	No data available
Carbonic acid, dimethyl ester - (616-38-6)	13,000.00, Rat - Category: NA	5,000.00, Rabbit - Category: 5	140.00, Rat - Category: NA	No data available	No data available
Diphenylmethanediisocyanate - (101-68-8)	4,700.00, Rat - Category: 5	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	3	Causes mild skin irritation. (Not adopted by US OSHA)
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	1	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	2	Suspected of causing cancer.
Reproductive toxicity	---	Not Applicable
STOT-single exposure	3	May cause drowsiness or dizziness.
STOT-repeated exposure	2	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Acetone - (67-64-1)	100.00, Pimephales promelas	10.00, Daphnia magna	20.565 (72 hr), Ulva pertusa
Heptane - (142-82-5)	375.00, Oreochromis mossambicus	50.00, Daphnia magna	Not Available
Carbonic acid, dimethyl ester - (616-38-6)	Not Available	Not Available	Not Available
Diphenylmethanediisocyanate - (101-68-8)	Not Available	129.70, Daphnia magna	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

1. Carrier must be hazmat certified.
2. Packaging: five-gallon pail.
3. Gross weight: ~46.5 lbs.
4. Dimensions: ~12” diameter x 13" h.
5. This item is not stackable.
6. UN Number: 1133.
7. UN Packaging Group: II.

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	B2 D2A

US EPA Tier II Hazards

Fire: Yes
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs (lbs):

Acetone (5,000.00)

Diphenylmethanediisocyanate (5,000.00)

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Diphenylmethanediisocyanate

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Acetone

Carbonic acid, dimethyl ester

Diphenylmethanediisocyanate

Heptane

Pennsylvania RTK Substances (>1%):

Acetone

Carbonic acid, dimethyl ester

Diphenylmethanediisocyanate

Heptane

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness and dizziness.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information in this document is believed to be correct as of the date issued However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this product or information, the safety of this product, or the hazards related to its use. The information and product are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof.

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