

# Safety Data Sheet

## NORDOT Adhesive #34N-2

SDS Revision Date: 04/02/2015

### 1. Identification

#### 1.1. Product identifier

**Product Identity** NORDOT Adhesive #34N-2

**Alternate Names** Polyisocyanate Resin

#### 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. 2;H315 | Causes skin irritation.                                                                                    |
| 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 or 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) |

#### 2.2. Label elements

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



**Danger**

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H225 Highly flammable liquid and vapor.  
H315 Causes 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.

**[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.  
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.  
P362 Take off contaminated clothing and wash before reuse.  
P363 Wash contaminated clothing before reuse.  
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

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**[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  |
|---------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Butanone<br>CAS Number: 0000078-93-3                    | 33 – 36  | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319<br>STOT SE 3; H336                                                                                                         | [1][2] |
| Diphenylmethanediisocyanate<br>CAS Number: 0000101-68-8 | < 3      | Carc. 2; H351<br>Acute tox. 4; H332<br>STOT RE 2; H373<br>Eye Irrit. 2; H319<br>STOT SE 3; H335<br>Skin Irrit. 2; H315<br>Resp. Sens. 1; H334<br>Skin Sens. 1; H317 | [1][2] |

[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

|                   |                                                                                                                                                                                                                                     |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b>    | In all cases of doubt, or when symptoms persist, seek medical attention.<br>Never give anything by mouth to an unconscious person.                                                                                                  |
| <b>Inhalation</b> | 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. |
| <b>Eyes</b>       | Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.                                                                                                                  |
| <b>Skin</b>       | Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.                                                                                                                           |
| <b>Ingestion</b>  | If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.                                                                                                                                              |

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

**Overview**

Acute: Causes irritation to eyes, respiratory tract and skin.

Chronic: May cause serious and possibly irreversible pulmonary injury.

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 skin irritation.

**5. Fire-fighting measures**

**5.1. Extinguishing media**

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder. Avoid contact with water.

**5.2. Special hazards arising from the substance or mixture**

Hazardous decomposition: By fire: CO<sub>2</sub>, CO, Oxides of Nitrogen

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. Avoid contact with water.

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.

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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**

Avoid open flames or sparks. Provide adequate ventilation. Absorb with sweeping/cleaning compound.

Follow practice for disposal of flammable organic solvent and be in accordance with Federal, State and Local regulations regarding environmental control.

**7. Handling and storage**

**7.1. Precautions for safe handling**

Avoid open flames, sparks, static electricity or other sources of ignition. 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: Avoid contact with water.

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                                                          |
|--------------|-----------------------------|----------|----------------------------------------------------------------|
| 0000078-93-3 | Butanone                    | OSHA     | TWA 200 ppm (590 mg/m3)                                        |
|              |                             | ACGIH    | TWA: 50 ppm STEL: 100 ppm                                      |
|              |                             | NIOSH    | TWA 200 ppm (590 mg/m3) ST 300 ppm (885 mg/m3)                 |
|              |                             | 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                                           |
|              |                             |          |                                                                |
|              |                             |          |                                                                |

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### Carcinogen Data

| CAS No.      | Ingredient                  | Source | Value                                                               |
|--------------|-----------------------------|--------|---------------------------------------------------------------------|
| 0000078-93-3 | Butanone                    | 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; |
|              |                             |        |                                                                     |
|              |                             |        |                                                                     |

### 8.2. Exposure controls

|                             |                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Respiratory</b>          | Approved for organic vapors, isocyanates and solvents.                                                                                                                                                                                                                                                                        |
| <b>Eyes</b>                 | Chemical safety goggles                                                                                                                                                                                                                                                                                                       |
| <b>Skin</b>                 | Wear overalls to keep skin contact to a minimum. Chemically resistant rubber or plastic                                                                                                                                                                                                                                       |
| <b>Engineering Controls</b> | 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

|                                                        |                                                                                          |
|--------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Appearance</b>                                      | Hazy, amber Liquid                                                                       |
| <b>Odor</b>                                            | Solvent odor                                                                             |
| <b>Odor threshold</b>                                  | Not Measured                                                                             |
| <b>pH</b>                                              | Not Measured                                                                             |
| <b>Melting point / freezing point</b>                  | Not Measured                                                                             |
| <b>Initial boiling point and boiling range</b>         | Not Measured                                                                             |
| <b>Flash Point</b>                                     | 21°F Tag Open Cup                                                                        |
| <b>Evaporation rate (Ether = 1)</b>                    | Slower than ether                                                                        |
| <b>Flammability (solid, gas)</b>                       | Not Applicable                                                                           |
| <b>Upper/lower flammability or explosive limits</b>    | <b>Lower Explosive Limit:</b> Not Measured<br><b>Upper Explosive Limit:</b> Not Measured |
| <b>Vapor pressure (Pa)</b>                             | Not Measured                                                                             |
| <b>Vapor Density</b>                                   | Heavier than air                                                                         |
| <b>Specific Gravity</b>                                | 0.99                                                                                     |
| <b>Solubility in Water</b>                             | Insoluble                                                                                |
| <b>Partition coefficient n-octanol/water (Log Kow)</b> | Not Measured                                                                             |

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|---------------------------|--------------|
| Auto-ignition temperature | Not Measured |
| Decomposition temperature | Not Measured |
| Viscosity (cSt)           | Not Measured |
| VOC Content (theoretical) | 346 g/l      |
| % Non-Volatile            | 64 - 67%     |

### 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

Avoid contact with water.

### 10.6. Hazardous decomposition products

By fire: CO<sub>2</sub>, CO, Oxides of Nitrogen

## 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,<br>mg/kg            | Skin LD50,<br>mg/kg                   | Inhalation<br>Vapor LD50,<br>mg/L/4hr | Inhalation<br>Dust/Mist LD50,<br>mg/L/4hr | Inhalation<br>Gas LD50,<br>ppm |
|------------------------------------------|--------------------------------|---------------------------------------|---------------------------------------|-------------------------------------------|--------------------------------|
| Butanone - (78-93-3)                     | 2,737.00, Rat -<br>Category: 5 | 6,480.00,<br>Rabbit -<br>Category: NA | 32.00, Mouse -<br>Category: NA        | No data<br>available                      | No data<br>available           |
| Diphenylmethanediisocyanate - (101-68-8) | 4,700.00, Rat -<br>Category: 5 | No data<br>available                  | No data<br>available                  | No data<br>available                      | No data<br>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).

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| Classification                | Category | Hazard Description                                                         |
|-------------------------------|----------|----------------------------------------------------------------------------|
| Acute toxicity (oral)         | ---      | Not Applicable                                                             |
| Acute toxicity (dermal)       | ---      | Not Applicable                                                             |
| Acute toxicity (inhalation)   | ---      | Not Applicable                                                             |
| Skin corrosion/irritation     | 2        | Causes skin irritation.                                                    |
| 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.                                               |
| 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

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

### Aquatic Ecotoxicity

| Ingredient                               | 96 hr LC50 fish, mg/l         | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l                    |
|------------------------------------------|-------------------------------|----------------------------|--------------------------------------|
| Butanone - (78-93-3)                     | 400.00, Cyprinodon variegatus | 520.00, Daphnia magna      | 500.00 (96 hr), Skeletonema costatum |
| 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.

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**13. Disposal considerations**

**13.1. Waste treatment methods**

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

**14. Transport information**

No information provided.

**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.

**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):**

Butanone      ( 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%):**

Butanone

Diphenylmethanediisocyanate

**Pennsylvania RTK Substances (>1%):**

Butanone

Diphenylmethanediisocyanate

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|                              |
|------------------------------|
| <b>16. Other information</b> |
|------------------------------|

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.

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.

**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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