

Technical Data Sheet [TDS]

AAT-725 Sports Floor and Resilient Adhesive

AAT-725 is a two part urethane adhesive suitable for indoor and outdoor installations of many types of sports flooring and synthetic turf. This high performance adhesive is ideal for installations of a wide range of resilient flooring over concrete slabs with very high moisture content and in building entrances where extreme moisture exposure is expected. AAT-725 has an extremely high shear strength making it the perfect choice for areas with heavy traffic and rolling loads. There is no flash time required so installation can begin immediately.

In addition to sports flooring and synthetic turf, the AAT-725 is approved for the installation of vinyl tile and plank [VCT, VET, SVT, LVT, LVP], sheet vinyl [homogeneous intended for “full spread” installations and felt backed], rubber flooring, cove base, underlayments, and cork flooring. AAT-725 should not be used for flooring with backings composed of polyolefin, polyethylene, or polypropylene.

The AAT-725 no-slump formula is solvent and water free, nonflammable, very low odor and is a certified “very low emission” adhesive. The adhesive is easy to spread, has a strong green grab and remains flexible. The adhesive is waterproof when cured, however, it is not a moisture inhibitor.

Prior to the start of the installation the installer must determine that the job-site conditions meet or exceed all applicable standards of the flooring manufacturer and AAT. Installation of any flooring should be one of the last jobs of any construction project. Sub-floors must be flat and structurally sound. The sub-floor should be flat within 3/16” in 10’ or 1/8” in 6’. All paint, varnish, oil, wax, finishes and any other bond inhibiting substances must be removed. Smooth or glazed surfaces must be abraded. Repair all joints and cracks with latex-based portland cement underlayment. Concrete sub-floors must be properly prepared according to the recommended practices detailed in the most recent version of document ASTM F-710. Depending upon type and condition of the sub-floor, a mechanical treatment [mechanical brushing, grinding or sanding] may be required. Never sand existing resilient flooring that could contain asbestos. Follow all Federal, State and Local regulations relating to the removal of in-place, asbestos containing material. Primer is normally not needed, however, very porous sub-floors may be primed with AAT-570 Primer. Heated sub-floors must be primed.

AAT-725 Sports Floor and Resilient Adhesive can be used over the following sub-floors with a maximum moisture emission rate of 25lbs/1000 sq. ft. /24 hours [ASTM F1869], a maximum *in situ* RH of 100% [ASTM F2170] and a maximum pH of 14:

- Concrete above, on or below grade
- APA rated plywood underlayment
- Properly prepared gypsum cement
- Existing non-cushion back resilient floors that are well bonded, sound, smooth, and free of waxes, finishes, cleaners and any other bond inhibiting substances.
- Ceramic Tiles
- Stone, Terrazzo
- Radiant heated sub-floors
- Seaming tape [synthetic turf]
- Asphalt
- Steel and aluminum
- Epoxy sealers [100% solid and fully cured]
- Stained concrete that is sound, smooth and free of waxes, cleaners and any other bond inhibiting substances.

For assistance with specific sub-floors and flooring/backing types please contact our Technical Services Department. AAT-725 is not for use with flooring manufactured with polyolefin, polyethylene, or polypropylene backings. AAT-725 cannot be used if adhesive removers, solvent or chemical cleaners have been used. For a copy of the Limited Warranty please contact Customer Service.

NOTE: Particleboard and OSB are **not** recommended underlayments. Strip or plank wood flooring, particleboard and OSB sub-floors should be covered with an approved plywood underlayment (minimum thickness of 3/4"). Before beginning installations with flooring types or over sub-floors not listed contact AAT Technical Services for recommendations. AAT will not warrant the adhesive when applied over Lauan plywood. AAT-725 cannot be used if adhesive removers, solvent or chemical cleaners have been used. Regulations may require that existing flooring material or coatings be tested to determine the asbestos content. Refer to the instructions for removal and handling of resilient flooring published by the RFCI in the publication, *Recommended Work Practices for Removal of Resilient Floor Coverings*. The Resilient Floor Covering Institute may be reached thru their Website www.rfci.org or by calling 301-340-8580.

Mixing of Components:

Pour 100% of part B [1.5 quart] into part A [2 gallon]. Mix thoroughly with an electric mixer for a minimum of three minutes or until a uniform mixture and color is achieved. Mixing ratio is 7 parts A to 1 part B by weight. Pot life is approximately 45 minutes at 70°F (21°C).

Installation Recommendations:

The installation site should have a consistent air temperature of 32°F-100°F and relative humidity levels should be 20% - 90% prior to the start of the installation. Be familiar with the recommendations and any special instructions from the flooring manufacturer before beginning the installation. Follow the flooring manufacturer’s specific recommendations regarding site temperature and relative humidity during the installation process.

1. Refer to the information above for specific information regarding sub-floor preparation and site conditions. Spread the adhesive with the appropriate trowel. See below for typical trowel notch recommendations. Since this product can be used with so many floor covering products, proper trowel selection is critical to the success of the installation. The adhesive application rate can be affected by several variables including porosity and texture of the sub-floor, backing texture of the floor covering and other factors. It is the mechanic’s responsibility to determine the proper trowel notch before beginning the installation. Allow the appropriate dwell or open time.

Open Times	30% RH	50% RH	80% RH
50°F/10°C	90 mins	90 mins	90 mins
70°F/21°C	75 mins	75 mins	75 mins
90°F/32°C	60 mins	60 mins	60 mins

2. Place the flooring into adhesive so as to minimize air bubbles and wrinkles.
3. Roll flooring with an appropriate size roller (75 – 100 lbs) to ensure adequate adhesive transfer. Should bubbles develop, or edges curl (a common problem with some of today’s floor coverings), press, weight or re-roll raised edges 30-60 minutes after installation.
4. AAT-725 cures after approximately 12 hours. Normal traffic can be allowed after this time.

Trowel Recommendations:**

Flat backings: 1/16" x 1/16" x 1/16" V notch | up to 180 sf/gal.
 Rough backings: 1/8" x 1/8" x 1/16" V notch | up to 70 sf/gal.
 Sport Flooring: 3/32" x 3/32" x 3/32" V notch | up to 135 sf/gal.
 Outdoor on rough surface: 3/16" x 3/16" x 3/16" V notch | up to 50 sf/gal.
 Run Length for 9" seam tape: 160 LF/unit

****Note: Trowel Notch dimensions are Width x Depth x Separation****

SPECIFIC TECHNICAL DATA:

1. VOC compliant, LEED qualified formula; no chlorinated solvents, nonflammable
2. Clean-Up: Remove uncured adhesive with acetone. Cured adhesive will be difficult to remove, therefore, take care to remove adhesive from the surface of the flooring before it cures. Do not apply the acetone directly to the flooring material. Test on a scrap piece of flooring to ensure that the solvent does not affect the floor’s finish.
3. Packaging: Part A-2 gallon pail, Part B-1.5 quart
4. Shelf-Life: 24 months from date of manufacture in un-opened container when stored at 70°F.
5. Freeze-Thaw Stable

March 5, 2019 [Replaces Feb 23, 2018]

Safety Data Sheet

acc. to OSHA HCS



Printing date 12/11/2017

Reviewed on 12/11/2017

1 Identification

- **Product identifier**
- **Trade name:** AAT-725 Part A
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Details of the supplier of the safety data sheet**
- **Distributor:**
Advanced Adhesive Technologies
424 S Spencer St
Dalton, GA 30721
Phone 800-AAT-GLUE
Fax 706-278-6207
- **Emergency telephone number:**
CHEMTREC 1-800-424-9300 (USA) 1-703-527-3887 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified according to the Globally Harmonized System (GHS).
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 Irritant
 May cause sensitization by skin contact.
- *Information concerning particular hazards for human and environment:*
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- *Classification system:*
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **Label elements**
- **GHS label elements** Void
- *Hazard pictograms* Void
- *Signal word* Void
- *Hazard statements* Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**


Health = 0
Fire = 1
Reactivity = 0
- **WHMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0
- **Results of PBT and vPvB assessment**
- *PBT:* Not applicable.
- *vPvB:* Not applicable.

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acc. to OSHA HCS

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Trade name: AAT-725 Part A

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3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
64742-16-1	Flüssiges Kohlenwasserstoffharz	2.5-10%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- *Most important symptoms and effects, both acute and delayed*
No further relevant information available.
- *Indication of any immediate medical attention and special treatment needed*
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective clothing.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

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Trade name: AAT-725 Part A

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- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
 - *Requirements to be met by storerooms and receptacles:* No special requirements.
 - *Information about storage in one common storage facility:* Not required.
 - *Further information about storage conditions:* Store in dry conditions.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
 - *General protective and hygienic measures:*
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
 - *Breathing equipment:*
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.
 - *Protection of hands:*



Protective gloves

- **Material of gloves**
Butyl rubber, BR
Nitrile rubber, NBR

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Trade name: AAT-725 Part A

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Natural rubber, NR

- *Eye protection:* Goggles recommended during refilling.
- *Body protection:* Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· *Appearance:*

<i>Form:</i>	Solid
<i>Color:</i>	Green
<i>Odor:</i>	Characteristic
<i>Odour threshold:</i>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Boiling point/Boiling range: 301 °C (574 °F)

· **Flash point:** 127 °C (261 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 420 °C (788 °F)

· *Decomposition temperature:* Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

<i>Lower:</i>	Not determined.
<i>Upper:</i>	Not determined.

· **Vapor pressure at 20 °C (68 °F):** 3 hPa (2 mm Hg)

· **Density at 20 °C (68 °F):** 1.55 g/cm³ (12.935 lbs/gal)

· *Relative density* Not determined.

· *Vapour density* Not determined.

· *Evaporation rate* Not determined.

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

<i>Dynamic at 20 °C (68 °F):</i>	160000 mPas
<i>Kinematic:</i>	Not determined.

· **Solvent content:**

Organic solvents: 0.0 %

VOC Content: 0.00 %

· **Other information** No further relevant information available.

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10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- *Thermal decomposition / conditions to be avoided:*
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- *Primary irritant effect:*
- *on the skin:* No irritant effect.
- *on the eye:* No irritating effect.
- *Sensitization:* Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- *Carcinogenic categories*

- *IARC (International Agency for Research on Cancer)*

1318-02-1	Zeolith A3	3
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- *NTP (National Toxicology Program)*

None of the ingredients is listed.

- *OSHA-Ca (Occupational Safety & Health Administration)*

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Trade name: AAT-725 Part A

- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
If product has aged or solidified conventional means of disposal are acceptable.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA** Void
- **UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA** Void
- **Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class** Void
- **Packing group**
- **DOT, ADR, IMDG, IATA** Void
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** -

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- *Sara*

- *Section 355 (extremely hazardous substances):*

None of the ingredient is listed.

- *Section 313 (Specific toxic chemical listings):*

1308-38-9 dichromium trioxide

- *TSCA (Toxic Substances Control Act):*

1317-65-3 calciumcarbonate

8001-79-4 Castor oil

64742-16-1 Flüssiges Kohlenwasserstoffharz

123-26-2 Luvotix HT

1308-38-9 dichromium trioxide

125643-61-0 A mixture of isomers of: C7-9-alkyl-3-(3,5-di-trans-butyl-4-hydroxyphenyl) propionate

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Trade name: AAT-725 Part A

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69011-20-7	Regler ZL	
· <i>Proposition 65</i>		
· <i>Chemicals known to cause cancer:</i>		
None of the ingredients is listed.		
· <i>Chemicals known to cause reproductive toxicity for females:</i>		
None of the ingredients is listed.		
· <i>Chemicals known to cause reproductive toxicity for males:</i>		
None of the ingredients is listed.		
· <i>Chemicals known to cause developmental toxicity:</i>		
None of the ingredients is listed.		
· <i>Canadian Ingredient disclosure list</i>		
· <i>Limit 0,1%</i>		
None of the ingredients is listed.		
· <i>Limit 1%</i>		
None of the ingredients is listed.		
· <i>Carcinogeny categories</i>		
· <i>EPA (Environmental Protection Agency)</i>		
1308-38-9	dichromium trioxide	D, CBD
· <i>TLV (Threshold Limit Value established by ACGIH)</i>		
1308-38-9	dichromium trioxide	A4
· <i>MAK (German Maximum Workplace Concentration)</i>		
None of the ingredients is listed.		
· <i>NIOSH-Ca (National Institute for Occupational Safety and Health)</i>		
None of the ingredients is listed.		
· National regulations:		
· <i>Technical instructions (air):</i>		
<i>Class</i>	<i>Share in %</i>	
III	≤ 2,5	
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.		

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Technical Department
- **Contact:** +1-800-228-4583
- **Date of preparation / last revision** 12/11/2017 / 127
- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer
(Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation

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1 Identification

- **Product identifier**
- **Trade name:** AAT-725 Part B
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- *Application of the substance / the mixture* Hardening agent/ Curing agent
- **Details of the supplier of the safety data sheet**
- **Distributor:**
Advanced Adhesive Technologies
424 S Spencer St
Dalton, GA 30721
Phone 800-AAT-GLUE
Fax 706-278-6207
- **Emergency telephone number:**
CHEMTREC 1-800-424-9300 (USA) 1-703-527-3887 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

- Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Carc. 2 H351 Suspected of causing cancer.
- STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

- Acute Tox. 4 H332 Harmful if inhaled.
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2A H319 Causes serious eye irritation.
- Skin Sens. 1 H317 May cause an allergic skin reaction.
- STOT SE 3 H335 May cause respiratory irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Harmful

Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.



Irritant

Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

- *Information concerning particular hazards for human and environment:*
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

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Trade name: AAT-725 Part B

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- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

diphenylmethanediisocyanate, isomeres and homologues
diphenylmethane-4,4'-di-isocyanate

- **Hazard statements**

H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 1
Reactivity = 0

- **WHMIS-ratings (scale 0 - 4)**



Health = *3
Fire = 1
Reactivity = 0

- **Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

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· vPvB: Not applicable.

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3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
9016-87-9 diphenylmethanediisocyanate, isomeres and homologues
- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	50-100%
101-68-8	diphenylmethane-4,4'-di-isocyanate	25-50%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- *Most important symptoms and effects, both acute and delayed*
Breathing difficulty
Coughing
Asthma attacks
- *Danger* Danger of impaired breathing.
- *Indication of any immediate medical attention and special treatment needed*
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:

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Carbon monoxide (CO)
 Nitrogen oxides (NOx)
 (Traces)
 Hydrogen cyanide (HCN)

• **Advice for firefighters**

• **Protective equipment:**

Wear fully protective suit.
 Do not inhale explosion gases or combustion gases.
 Mount respiratory protective device.
 Wear self-contained respiratory protective device.

6 Accidental release measures

• **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation
 Wear protective clothing.

• **Environmental precautions:**

Do not allow product to reach sewage system or any water course.
 Inform respective authorities in case of seepage into water course or sewage system.
 Do not allow to enter sewers/ surface or ground water.

• **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose contaminated material as waste according to item 13.
 Ensure adequate ventilation.

• **Reference to other sections**

See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

7 Handling and storage

• **Handling:**

• **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.

• **Information about protection against explosions and fires:**

No special measures required.

• **Conditions for safe storage, including any incompatibilities**

• **Storage:**

• *Requirements to be met by storerooms and receptacles:* No special requirements.

• *Information about storage in one common storage facility:* Not required.

• *Further information about storage conditions:*

Protect from frost.
 Keep receptacle tightly sealed.

• **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

101-68-8 diphenylmethane-4,4'-di-isocyanate

PEL	Ceiling limit value: 0.2 mg/m ³ , 0.02 ppm
REL	Long-term value: 0.05 mg/m ³ , 0.005 ppm Ceiling limit value: 0.2* mg/m ³ , 0.02* ppm *10-min
TLV	Long-term value: 0.051 mg/m ³ , 0.005 ppm

- *Additional information:* The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- *General protective and hygienic measures:*

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- *Breathing equipment:*

Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

- *Protection of hands:* Not required.

- *Material of gloves*

Butyl rubber, BR

Nitrile rubber, NBR

- *As protection from splashes gloves made of the following materials are suitable:*

Natural rubber, NR

- *Eye protection:*



Tightly sealed goggles

- *Body protection:* Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- *Appearance:*

Form:

Fluid

Color:

Dark brown

- *Odor:*

Weak, characteristic

- *Odour threshold:*

Not determined.

- **pH-value:**

Not determined.

- **Change in condition**

Boiling point/Boiling range:

Undetermined.

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<i>Setting temperature / range:</i>	0 °C (32 °F)
· Flash point:	201 °C (394 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	400 °C (752 °F)
· <i>Decomposition temperature:</i>	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
<i>Lower:</i>	0.4 Vol %
<i>Upper:</i>	Not determined.
· Vapor pressure at 20 °C (68 °F):	11 hPa (8 mm Hg)
· Density at 20 °C (68 °F):	1.22 g/cm ³ (10.181 lbs/gal)
· <i>Relative density</i>	Not determined.
· <i>Vapour density</i>	Not determined.
· <i>Evaporation rate</i>	Not determined.
· Solubility in / Miscibility with	
<i>Water:</i>	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
<i>Dynamic at 20 °C (68 °F):</i>	220 mPas
<i>Kinematic:</i>	Not determined.
· Solvent content:	
<i>Organic solvents:</i>	0.0 %
<i>VOC Content:</i>	0.00 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- *Thermal decomposition / conditions to be avoided:*
No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
Reacts with water.
Exothermic reaction with amines and alcohols; reacts with water forming CO₂; in closed containers, risk of bursting owing to increase of pressure.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- *LD/LC50 values that are relevant for classification:*

Oral	LD50	>10000 mg/kg (Ratte)
Dermal	LD50	>10000 mg/kg (rabbit)
Inhalative	LC50	0.493 mg/l (Ratte) (4h)

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	> 2000 mg/kg (Ratte)
Dermal	LD50	> 9400 mg/kg (rab) (OECD- Prüfrichtlinie 402)
Inhalative	LC50/48 h	490 mg/l (Ratte) (als Aerosol, Exposition)

101-68-8 diphenylmethane-4,4'-di-isocyanate

Oral	LD50	> 2000 mg/kg (Ratte) (Richtlinie 84/449/EWG, B.1)
Dermal	LD50	>9400 mg/kg (rab) (OECD- Prüfrichtlinie 402)
Inhalative	LC50/ 4h	0.368 mg/l (Ratte)

- *Primary irritant effect:*

- *on the skin:* Irritant to skin and mucous membranes.

- *on the eye:* Irritating effect.

- *Sensitization:*

Sensitization possible through inhalation.

Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

- *Carcinogenic categories*

· <i>IARC (International Agency for Research on Cancer)</i>		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3
101-68-8	diphenylmethane-4,4'-di-isocyanate	3

- *NTP (National Toxicology Program)*

None of the ingredients is listed.

- *OSHA-Ca (Occupational Safety & Health Administration)*

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

EC0	> 500 mg/l (Daphnia magna Wasserfloh) (24h)
	1640 mg/l (Scenedesmus subspicatus) (72h)
LC0	> 1000 mg/l (Fisch) (96h)

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9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

EC50	>1000 mg/l (Daphnia magna Wasserfloh) (OECD-Prüfrichtlinie 202)
LC0	>1000 mg/l (Fisch) (96h)

101-68-8 diphenylmethane-4,4'-di-isocyanate

EC50	>1000 mg/l (Daphnia magna Wasserfloh) (OECD-Prüfrichtlinie 202)
LC50/ 96h	>1000 mg/l (Danio rerio (Zebraabärbling)) (OECD-Prüfrichtlinie 203)
NOEC	>10 mg/l (Daphnia magna Wasserfloh) (OECD-Prüfrichtlinie 202 (Fortpflanzung))

- **Persistence and degradability** Heavily biodegradable
- **Behavior in environmental systems:**
- **Bioaccumulative potential** Not worth-mentioning accumulating in organisms
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
If product has aged or solidified conventional means of disposal are acceptable.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA** Void
- **UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA** Void
- **Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class** Void
- **Packing group**
- **DOT, ADR, IMDG, IATA** Void
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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UN "Model Regulation":

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15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- *Sara*

- *Section 355 (extremely hazardous substances):*

None of the ingredient is listed.

- *Section 313 (Specific toxic chemical listings):*

All ingredients are listed.

- *TSCA (Toxic Substances Control Act):*

All ingredients are listed.

- *Proposition 65*

- *Chemicals known to cause cancer:*

None of the ingredients is listed.

- *Chemicals known to cause reproductive toxicity for females:*

None of the ingredients is listed.

- *Chemicals known to cause reproductive toxicity for males:*

None of the ingredients is listed.

- *Chemicals known to cause developmental toxicity:*

None of the ingredients is listed.

- *Canadian Ingredient disclosure list*

- *Limit 0,1%*

101-68-8 | diphenylmethane-4,4'-di-isocyanate

- *Limit 1%*

None of the ingredients is listed.

- *Carcinogeny categories*

- *EPA (Environmental Protection Agency)*

9016-87-9 | diphenylmethanediisocyanate, isomeres and homologues

CBD

101-68-8 | diphenylmethane-4,4'-di-isocyanate

D, CBD

- *TLV (Threshold Limit Value established by ACGIH)*

None of the ingredients is listed.

- *MAK (German Maximum Workplace Concentration)*

9016-87-9 | diphenylmethanediisocyanate, isomeres and homologues

4

101-68-8 | diphenylmethane-4,4'-di-isocyanate

4

- *NIOSH-Ca (National Institute for Occupational Safety and Health)*

None of the ingredients is listed.

- **National regulations:**

- *Technical instructions (air):*

Class	Share in %
I	50-100

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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Technical Department
- **Contact:** +1-800-228-4583
- **Date of preparation / last revision** 12/11/2017 / 105

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer
(Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

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