

Technical Data Sheet [TDS]

AAT-712 Epoxy Primer and Patch Additive

AAT-712 is a two component, hybrid-epoxy resin based primer for sub floor preparation prior to installation of urethane based leveling compounds. Unlike water or urethane based primer, AAT-712 is not affected by elevated sub floor moisture. It will not foam up or get weaker because of water present in the sub floor. It also has a higher penetration of the concrete compared to traditional 100% solid epoxies which creates a stronger bond. It does however NOT create a moisture barrier but merely reduces the amount of vapor penetration. AAT-712 spreads easily and creates a dust free surface ready for safe installation of flooring. It increases the bonding of subsequently applied primers, leveling compounds and/or adhesives.

Pre-Installation Checklist: A successful installation requires proper preparation of the sub-floor. Read and understand all applicable guidelines and technical data sheets before installation. Follow industry standards and flooring manufacturer's recommendations for sub-floor moisture content, design, layout and application of flooring materials. All slab constructions must meet the specific requirements of the floor covering to be installed.

Sub-floor Examination: Do not apply sealer onto standing water. Examine concrete sub-floor for color, cleanliness, porosity and pre-existing residues PRIOR TO installation. Concrete sub-floors must be checked for any contaminants and/or anti-adherents. Prior to installation, the sub-floor must be checked according to applicable installation guidelines. It must be solid and sound, clean, free of chaps and anti-adherents, as well as resistant to pressure and tension. Check for missing or compromised vapor barriers and hydrostatic pressure. Perform *in situ* RH or CaCl moisture tests following ASTM standards. Results of 99% RH or 25# CaCl could indicate that there is a higher moisture content in the slab than what tests can measure and there might be hydrostatic pressure and/or a compromised or missing vapor barrier. Resistent up to 14ph.

Approved Sub-floors: Concrete Slabs, Ceramic Tiles, Stone, Terrazzo, Concrete Slab up to 25#/24hrs/1,000SF and 100% RH, stained concretes (well bonded)

Sub-floor Preparation: The condition of the sub-floor will determine which type of mechanical treatment is required (e.g. wire brushing, sanding, grinding or shot blasting). Dust, paint, curing compounds, sealers, residual adhesives or other surface pollutants MUST be removed by suitable means. Extent of sub-floor preparation can only be determined at the site by the installer. Clean the surface with an industrial vacuum cleaner, tack or damp mop floor before application. Cracks and gaps must be treated prior to application of primers, sealers, leveling compounds, and/or adhesives.

Mixing of Components: Lid contains hardener. Pierce all the way through plastic disc in center of lid and the bottom of the lid using a long screwdriver or similar tool. Let the hardener flow into the lower part of the bucket for one minute. All of the hardener must drain into the pail before mixing parts A&B. Open ring, remove the lid and mix both components with mixing paddle for at least 3 minutes. Use an electric drill with less than 300 rpm until an even color is reached. Avoid air entrapment by mixing slowly and using an appropriate mixing paddle. Make

sure to mix along wall and bottom- part of the container as well. Temperature of both components should be at least 50°F before mixing.

Installation Procedure: Apply sealer undiluted with approved applicator. Make sure sealer is spread evenly and up to the perimeters. The spread rate is critical for a successful installation. Do not exceed the maximum coverage.

General Features: works under any type of flooring, contains no isocyanates, contains no chlorinated solvents, contains no solvents, contains no VOC (calc. per CA Rule 1168), high solids content, ozone friendly, Freeze/thaw stable, contains no isocyanates

Installation Features: creates dust free surface, very low odor, high spread rate, excellent penetration of sub-floor, higher temp & RH will shorten drying time, observe pot life during installation, when used as a Portland cement based additive creates a fast drying waterproof patch.

Limitations: When using other than AAT products in conjunction with AAT primers, sealers, leveling compounds, or adhesives, AAT denies any and all responsibility for any ensuing problems and/or damages without prior written authorization from AAT. Do not dilute primer/sealer or mix with other products. In case of accident, injury, spill or exposure, see SDS sheet for information. Consult technical data sheet at www. aatglue.com for updated information. Sealer will not prevent moisture damages from hydrostatic pressure, underground springs, compromised vapor barriers underneath the slab, damaged water pipes, sinks, icemakers, faulty plumbing, flooding, etc. AAT-712 cannot be used if adhesive removers, solvent or chemical cleaners have been used.

Specific Technical Data:

- Coverage rate: up to 320 sq.ft/gal.
- Drying Time: approx. 2 hours or until clear
- Site Conditions: 50-90°F, 30-80 % relative humidity
- Pot Life: approx. 45 min @ 70 °F (21 °C)
- 2.5 gallon combo pail, 60 per pallet; 0.75qt Part A + 2.25qt Part B [plastic jug]
- Storage: above 32 °F, not freeze/thaw stable
- Shelf Life: 24 months in original, unopened container
- Transportation: UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. DOT Class 9

August 8, 2019



Printing date 07/30/2019 Reviewed on 07/30/2019

1 Identification

· Product identifier

· Trade name: AAT-712 Part A

- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Advanced Adhesive Technologies LLC

424 South Spencer Street

Dalton, GA 30721 Tel: 800-228-4583 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



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic 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.

- · Label elements
- GHS label elements

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

Hazard pictograms





GHS06 GHS07

- · Signal word Danger
- · Hazard-determining components of labeling:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane

formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

· Hazard statements

H331 Toxic if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

· Precautionary statements

P264 Wash thoroughly after handling.
P302+P352 If on skin: Wash with plenty of water.
P321 Specific treatment (see on this label).

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

P311 Call a poison center/doctor.

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Trade name: AAT-712 Part A

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P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

Take off contaminated clothing and wash it before reuse. P362+P364 P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention.

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 = 2 Fire = 1 Reactivity = 0

· WHMIS-ratings (scale 0 - 4)



2 Health = 2 Fire = 1

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

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

| · Dangerous components: | | | | |
|-------------------------|--|---------|--|--|
| 25068-38-6 | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane | 50-100% | | |
| 9003-36-5 | formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 10-25% | | |
| 68609-97-2 | Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | 10-25% | | |

· Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Supply fresh air or oxygen; call for 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. Immediately rinse with water.

· 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.

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Trade name: AAT-712 Part A

(Contd. of page 2)

- · 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.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mount respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective clothing.

· Environmental precautions:

Dilute with plenty of water.

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.

Protective Action Criteria for Chemicals

| · PAC-1: | |
|--|-------------------------|
| 25068-38-6 Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane | 90 mg/m³ |
| · PAC-2: | |
| 25068-38-6 Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane | 990 mg/m ³ |
| · PAC-3: | |
| 25068-38-6 Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane | 5,900 mg/m ³ |

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.

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Trade name: AAT-712 Part A

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- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · 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:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

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:



Protective gloves

- · Material of gloves Strong gloves
- · 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: According to product specification

Odor: CharacteristicOdor threshold: Not determined.pH-value: Not determined.

· Change in condition

Boiling point/Boiling range: Undetermined.

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Trade name: AAT-712 Part A

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Flash point: >93 °C (>199.4 °F)
 Flammability (solid, gaseous): Not applicable.
 Decomposition temperature: Not determined.

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

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

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

• Vapor pressure: Not determined.

• **Density at 20 °C (68 °F):** 1.12 g/cm³ (9.3464 lbs/gal)

Relative density
Vapor density
Evaporation rate
Not determined.
Not determined.
Not determined.

· Solubility in / Miscibility with

Water: Not determined.

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

· Viscosity:

Dynamic: Not determined.

Kinematic at 20 °C (68 °F): 570-850 s (DIN 53211/4)

· Solvent content:

VOC Content: 0.00 % 0.00 %

Other information
 No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · 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:

| 25068-38- | 6 Phenol, 4,4 | '-(1-methylethylidene)bis-, | polymer with | (chloromethyl)oxirane |
|-----------|---------------|-----------------------------|--------------|-----------------------|
| | | | | |

Inhalative LC50 (static) 1.5 mg/l (Fisch)

9003-36-5 formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

 Oral
 LD50
 >2,000 mg/kg (Ratte)

 Dermal
 LD50
 >5,000 mg/kg (Ratte)

· LD/LC50 values that are relevant for classification:

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· Specific symptoms in biological assay:

9003-36-5 formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Irritation of eyes Reizwirkung - (rab)

- · Primary irritant effect:
- · on the skin: No irritant effect.
- on the eye: 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:

Toxic

Irritant

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· 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: | | | | | |
|--|---|--|--|--|--|
| 25068-38-6 Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane | | | | | |
| EC50 | 11 mg/l (Selenastrum capricornutum) (72h) | | | | |
| | 1.8 mg/l (Daphnia magna Wasserfloh) (48h) | | | | |
| NOEC | 0.3 mg/l (Daphnia magna Wasserfloh) (21 Tg) | | | | |
| 9003-36-5 formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | | | | | |
| LC50/ 96h 0.55 mg/l (Fisch) | | | | | |
| EC50 | 1.8 mg/l (Algen- Navicula seminulum) (72h) | | | | |
| | 1.6 mg/l (Daphnia magna Wasserfloh) (48h) | | | | |
| NOEC | 0.3 mg/l (Daphnia magna Wasserfloh) | | | | |

- · 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 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB**: Not applicable.

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Trade name: AAT-712 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.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number

· DOT, ADR, IMDG, IATA UN3077

· UN proper shipping name

DOT Hazardous waste, solid, n.o.s. (Phenol, 4,4'-(1-

methylethylidene)bis-, polymer with (chloromethyl)oxirane, formaldehyde, oligomeric reaction products with 1-chloro-2,3-

epoxypropane and phenol)

· **ADR** 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

SOLID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin)

epoxy resin (number average molecular weight = 700),

formaldehyde, oligomeric reaction products with 1-chloro-2,3-

epoxypropane and phenol)

· IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy

resin (number average molecular weight = 700),

formaldehyde, oligomeric reaction products with 1-chloro-2,3-

epoxypropane and phenol), MARINE POLLUTANT

· IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy

resin (number average molecular weight = 700),

formaldehyde, oligomeric reaction products with 1-chloro-2,3-

epoxypropane and phenol)

· Transport hazard class(es)

· DOT, ADR, IMDG, IATA



· Class 9 Miscellaneous dangerous substances and articles

9

· Label

· Packing group

· DOT, ADR, IMDG, IATA

• Environmental hazards: Product contains environmentally hazardous substances:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with

(chloromethyl)oxirane

· Marine pollutant: Yes (DOT)

Symbol (fish and tree) Symbol (fish and tree)

• Special marking (ADR): Symbol (fish and tree)
• Special marking (IATA): Symbol (fish and tree)

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Trade name: AAT-712 Part A

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· Special precautions for user Warning: Miscellaneous dangerous substances and articles

Danger code (Kemler): 90
EMS Number: F-A,S-F

· Stowage Category A

· Stowage Code SW23 When transported in BK3 bulk container, see 7.6.2.12

and 7.7.3.9.

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· DOT

· Remarks: Special marking with the symbol (fish and tree).

· ADR

· Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

·IMDG

Limited quantities (LQ)
 Excepted quantities (EQ)
 5 kg
 Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· <u>UN "Model Regulation":</u> UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

SOLID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE

MOLECULAR WEIGHT = 700), FORMALDEHYDE,

OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-

2,3-EPOXYPROPANE AND PHENOL), 9, III

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):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

25068-38-6 Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane ACTIVE 9003-36-5 formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

68609-97-2 Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

ACTIVE

· Hazardous Air Pollutants

None of the ingredients is 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.

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Trade name: AAT-712 Part A

(Contd. of page 8)

· 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%

None of the ingredients is listed.

· Limit 1%

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

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

None of the ingredients is listed.

· 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.

· Contact: Tel: 800-228-4583

· Date of preparation / last revision 07/30/2019 / -

· Abbreviations and acronyms:

Acute Tox. 3: Acute toxicity – Category 3 Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Skin Sens. 1: Skin sensitisation - Category 1



Reviewed on 07/30/2019 Printing date 07/30/2019

1 Identification

· Product identifier

· Trade name: AAT-712 Part B

Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Advanced Adhesive Technologies LLC

424 South Spencer Street

Dalton, GA 30721 Tel: 800-228-4583 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).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- NFPA ratings (scale 0 4)



Health = 0Fire = 1Reactivity = 0

· WHMIS-ratings (scale 0 - 4)



Health = 0 Fire = 1

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

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

79-09-4 propionic acid

2.5-10%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complications.
- · After skin contact: Generally the product does not irritate the skin.

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Trade name: AAT-712 Part B

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· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- 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.

- · Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective clothing.

- Environmental precautions: 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).

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.

Protective Action Criteria for Chemicals

| · PAC-1: | | |
|------------------------|---------|--|
| 79-09-4 propionic acid | 15 ppm | |
| · PAC-2: | | |
| 79-09-4 propionic acid | 28 ppm | |
| · PAC-3: | | |
| 79-09-4 propionic acid | 170 ppm | |

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special precautions are necessary if used correctly.
- · 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: None.

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Trade name: AAT-712 Part B

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

(Contd. of page 2)

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:

79-09-4 propionic acid

REL Short-term value: 45 mg/m³, 15 ppm Long-term value: 30 mg/m³, 10 ppm TLV Long-term value: 30 mg/m³, 10 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:

The usual precautionary measures for handling chemicals should be followed.

Wash hands before breaks and at the end of work.

- · Breathing equipment: Not necessary if room is well-ventilated.
- · Protection of hands: Not required.
- · Material of gloves Strong gloves
- · 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:

Form: Fluid

Color: According to product specification

Odor: CharacteristicOdor threshold: Not determined.

• pH-value at 20 °C (68 °F): 9.5

· Change in condition

Boiling point/Boiling range: 141.5 °C (286.7 °F)

• Flash point: >100 °C (>212 °F)

• Flammability (solid, gaseous): Not applicable.

• Ignition temperature: 485 °C (905 °F)
• Decomposition temperature: Not determined.

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

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

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapor pressure: Not determined.

(Contd. on page 4)

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Trade name: AAT-712 Part B

Density at 20 °C (68 °F): 1.04 g/cm³ (8.6788 lbs/gal)

Relative density
Vapor density
Evaporation rate
Not determined.
Not determined.
Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

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

· Viscosity:

Dynamic: Not determined.

Kinematic at 20 °C (68 °F): 200-370 s (DIN 53211/4)

· Solvent content:

VOC Content: 0.00 % 0.00 %

• Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · 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: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

- US

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

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Smaller quantities can be disposed of with household waste.
- · 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:
 Special precautions for user
 Not applicable.
 Not applicable.

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": Void

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.

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(Contd. of page 5) · Section 313 (Specific toxic chemical listings): None of the ingredients is listed. TSCA (Toxic Substances Control Act): 79-09-4 propionic acid ACTIVE · Hazardous Air Pollutants None of the ingredients is 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% None of the ingredients is listed. · Limit 1% All ingredients are listed. · Cancerogenity categories · EPA (Environmental Protection Agency) None of the ingredients is listed. · TLV (Threshold Limit Value established by ACGIH) None of the ingredients is listed. · MAK (German Maximum Workplace Concentration) None of the ingredients is listed. · NIOSH-Ca (National Institute for Occupational Safety and Health)

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.

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

· Contact: Tel: 800-228-4583

None of the ingredients is listed.

· Date of preparation / last revision 07/30/2019 / -