

# AAG 2K HARDENER

## safety data sheet



08L19900HH20  
19/04 2022

### Safety Data Sheet

according to Regulation (EC) No 1907/2006

#### AAG 2k Hardener

Revision date: 27.01.2022

Product code: 63

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#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

AAG 2k Hardener

Product group: Zwischenprodukt  
UFI: 2D10-80TE-Q00Q-E6P3

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

###### Use of the substance/mixture

Hardener, Adhesives, sealants

###### Uses advised against

Reserved for industrial and professional use.

##### 1.3. Details of the supplier of the safety data sheet

Company name: AAG  
Street: Sundsholmen 3  
Place: DK-9400 Nørresundby  
Telephone: +45 98158022  
Internet: www.aag-gummi.dk  
Telefax: +45 98159903

##### 1.4. Emergency telephone number:

Contact The National Poisons Information Service (dial 111, 24 h service).

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No. 1272/2008

Hazard categories:  
Flammable liquid: Flam. Liq. 2  
Skin corrosion/irritation: Skin Irrit. 2  
Serious eye damage/eye irritation: Eye Irrit. 2  
Respiratory or skin sensitisation: Resp. Sens. 1  
Respiratory or skin sensitisation: Skin Sens. 1  
Carcinogenicity: Carc. 2  
Specific target organ toxicity - single exposure: STOT SE 3  
Specific target organ toxicity - single exposure: STOT SE 3  
Specific target organ toxicity - repeated exposure: STOT RE 2

###### Hazard Statements:

Highly flammable liquid and vapour.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
Suspected of causing cancer.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
May cause damage to organs through prolonged or repeated exposure.

##### 2.2. Label elements

###### Regulation (EC) No. 1272/2008

###### Hazard components for labelling

ethyl acetate  
Isocyanic acid, polymethylenepolyphenylene ester

Signal word: Danger

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#### Pictograms:



#### Hazard statements

H225	Highly flammable liquid and vapour.
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.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.

#### Precautionary statements

P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P370+P378	In case of fire: Use sand, extinguishing powder or alcohol-resistant foam to extinguish.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.
P312	Call a POISON CENTER/doctor if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P280	Wear protective gloves and eye/face protection.
P260	Do not breathe mist/vapours/spray.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P201	Obtain special instructions before use.

#### Special labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.
	As from 24 August 2023 adequate training is required before industrial or professional use.

#### 2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
141-78-6	ethyl acetate			>= 70 - < 90 %
	205-500-4	607-022-00-5	01-2119475103-46	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester			>= 20 - < 30 %
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			

Full text of H and EUH statements: see section 16.

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#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
141-78-6	205-500-4	ethyl acetate	$\geq 70 - < 90$ %
		inhalation: LC50 = 29,3 mg/l (vapours); dermal: LD50 = $>2000$ mg/kg; oral: LD50 = 4934 mg/kg	
9016-87-9		Isocyanic acid, polymethylenepolyphenylene ester	$\geq 20 - < 30$ %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = $>9400$ mg/kg; oral: LD50 = $> 10000$ mg/kg	

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### General information

The danger areas must be delimited and identified using relevant warning and safety signs.

###### After inhalation

Immediately call a doctor. If unconscious but breathing normally, place in recovery position and seek medical advice.

###### After contact with skin

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation)., IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

###### After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician in any case!

###### After ingestion

Give nothing to eat or drink. IF SWALLOWED: Call a doctor if you feel unwell.

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

Keine bekannt.

##### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### Suitable extinguishing media

alcohol resistant foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder

###### Unsuitable extinguishing media

Full water jet

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

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

##### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

###### Additional information

Retain contaminated washing water and dispose it.

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

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#### General measures

Use personal protection equipment. Provide adequate ventilation. Remove all sources of ignition. Remove persons to safety. The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

#### 6.2. Environmental precautions

Do not empty into drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

#### 6.3. Methods and material for containment and cleaning up

##### Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### 6.4. Reference to other sections

See section 8. SECTION 13: Disposal considerations

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Do not breathe vapour/aerosol. Avoid exposure. Obtain special instructions before use. Avoid contact with skin. Avoid contact with eyes. Wear personal protection equipment (refer to section 8). When using do not eat or drink. Take precautionary measures against static discharges. Provide adequate ventilation. Provide adequate ventilation as well as local exhaust at critical locations.

##### Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges.

##### Further information on handling

When using do not eat, drink or smoke. Wash hands before breaks and after work. Follow the instructions for use on the label.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep away from sources of ignition - No smoking. Keep container tightly closed in a cool, well-ventilated place.

##### Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

#### 7.3. Specific end use(s)

No data available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
141-78-6	Ethyl acetate	200	734		TWA (8 h)	WEL
		400	1468		STEL (15 min)	WEL

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#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
141-78-6	ethyl acetate			
Worker DNEL, acute		inhalation	local	1468 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	734 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	734 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	63 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	37 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	367 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral		4,5 mg/kg bw/day
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester			
Worker DNEL, acute		dermal	systemic	50 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	0,1 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	0,1 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	systemic	0,05 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	0,05 mg/m <sup>3</sup>
Consumer DNEL, acute		dermal	systemic	25 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	0,05 mg/m <sup>3</sup>
Consumer DNEL, acute		oral	systemic	20 mg/kg bw/day
Consumer DNEL, acute		dermal	local	17,2 mg/cm <sup>2</sup>
Consumer DNEL, acute		inhalation	local	0,05 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	systemic	0,025 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	0,025 mg/m <sup>3</sup>
Worker DNEL, acute		dermal	local	27,8 mg/person/day

#### PNEC values

CAS No	Substance	Value
141-78-6	ethyl acetate	
Freshwater		0,26 mg/l
Marine water		0,026 mg/l
Freshwater sediment		0,34 mg/kg
Marine sediment		0,034 mg/kg
Soil		0,22 mg/kg
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	
Freshwater		1 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		1 mg/kg

#### 8.2. Exposure controls

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#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

#### Protective and hygiene measures

When using do not eat, drink, smoke, sniff.

#### Eye/face protection

Wear eye/face protection.

#### Hand protection

Wear protective gloves. EN ISO 374: Butyl caoutchouc (butyl rubber), Thickness of the glove material:  $\geq 0,5$  mm, Breakthrough time:  $\geq 60$  min

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Gasfilter (Typ A1 nach EN14387). Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	cloudy, yellow, brown	
Odour:	aromatic	
pH-Value:		No data available

#### Changes in the physical state

Melting point:		No data available
Boiling point or initial boiling point and boiling range:		77 °C
Sublimation point:		No data available
Softening point:		No data available
Pour point:		No data available
:		No data available
Flash point:		-3 °C
Sustaining combustion:		No data available

#### Flammability

Solid/liquid:	No data available
Gas:	No data available

#### Explosive properties

No data available

Lower explosion limits:	2,1
Upper explosion limits:	11,5
Auto-ignition temperature:	No data available

#### Self-ignition temperature

Solid:	No data available
Gas:	No data available

Decomposition temperature:	No data available
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#### Oxidizing properties

No data available

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Vapour pressure: (at 20 °C)	100 hPa
Density (at 20 °C):	0,97 g/cm <sup>3</sup>
Bulk density:	No data available
Water solubility:	No data available
<b>Solubility in other solvents</b> No data available	
Partition coefficient n-octanol/water:	No data available
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Flow time:	No data available
Relative vapour density:	No data available
Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	ca. 72 %

#### **9.2. Other information**

Solid content:	ca. 28 %
No data available	

### **SECTION 10: Stability and reactivity**

#### **10.1. Reactivity**

Does not decompose when used for intended uses.

#### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

#### **10.3. Possibility of hazardous reactions**

Vapours may form explosive mixtures with air.

#### **10.4. Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.,  
Moisture-sensitive.

#### **10.5. Incompatible materials**

Oxidizing agent, Acids, Alkali (lye)

#### **10.6. Hazardous decomposition products**

The product is stable under storage at normal ambient temperatures.

### **SECTION 11: Toxicological information**

#### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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#### Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
141-78-6	ethyl acetate				
	oral	LD50 4934 mg/kg	Rabbit		OECD 401
	dermal	LD50 >2000 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 29,3 mg/l	Rat		
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester				
	oral	LD50 > 10000 mg/kg	Rat	OECD 401	
	dermal	LD50 >9400 mg/kg	Rabbit	OECD 402	
	inhalation vapour	ATE 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

No data available

### SECTION 12: Ecological information

#### 12.1. Toxicity

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
141-78-6	ethyl acetate					
	Acute fish toxicity	LC50 230 mg/l	96 h	Pimephales promelas (fathead minnow)		
	Acute crustacea toxicity	EC50 717 mg/l	48 h	Daphnia magna (Big water flea)		
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Danio rerio (zebrafish)	OECD 203	
	Acute algae toxicity	ErC50 >1640 mg/l	72 h	Desmodesmus subspicatus	OECD 201	

#### 12.2. Persistence and degradability

There are no data available on the mixture itself.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
141-78-6	ethyl acetate			
	OECD 301 D	79 %	20	
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester			
	Inherent Biodegradability: Modfield MITI Test (II)	0 %	28	
	Biodegradable. : No			

#### 12.3. Bioaccumulative potential

There are no data available on the mixture itself.



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#### BCF

CAS No	Chemical name	BCF	Species	Source
141-78-6	ethyl acetate	30		
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	200	Cyprinus carpio (Common Carp)	

#### 12.4. Mobility in soil

There are no data available on the mixture itself.

#### 12.5. Results of PBT and vPvB assessment

The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

No data available

#### 12.7. Other adverse effects

There are no data available on the mixture itself.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Dispose of waste according to applicable legislation.

##### List of Wastes Code - residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

##### Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number:** UN 1173  
**14.2. UN proper shipping name:** ETHYL ACETATE, mixture  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3



Classification code: F1  
Limited quantity: 1 L  
Excepted quantity: E2  
Transport category: 2  
Hazard No: 33  
Tunnel restriction code: D/E

#### Inland waterways transport (ADN)

**14.1. UN number:** UN 1173  
**14.2. UN proper shipping name:** ETHYL ACETATE, mixture

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**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3



Classification code: F1  
Limited quantity: 1 L  
Excepted quantity: E2

#### Marine transport (IMDG)

**14.1. UN number:** UN 1173  
**14.2. UN proper shipping name:** ETHYL ACETATE, mixture  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3



Special Provisions: -  
Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-E, S-D

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN 1173  
**14.2. UN proper shipping name:** ETHYL ACETATE, mixture  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3



Limited quantity Passenger: 1 L  
Passenger LQ: Y341  
Excepted quantity: E2  
IATA-packing instructions - Passenger: 353  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 364  
IATA-max. quantity - Cargo: 60 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

Reference to other sections: 6 - 8, Highly flammable, Keep away from food, drink and animal feedingstuffs.

#### 14.7. Maritime transport in bulk according to IMO instruments

No data available

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

2010/75/EU (VOC): 72 % (698,4 g/l)

2004/42/EC (VOC): 72 % (698,4 g/l)

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

#### Additional information

Further restrictions on use (REACH, Annex XVII) entry 56, entry 74

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

#### SECTION 16: Other information

##### Changes

This data sheet contains changes from the previous version in section(s): 8,15.

#### Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Carc. 2; H351	Calculation method
STOT SE 3; H335	
STOT SE 3; H336	Calculation method
STOT RE 2; H373	Calculation method

#### Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product

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named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*