

SAFETY DATA SHEET

According to EC Regulation 1907/2006 (REACH), Attachment II

Date of issue: 01/01/1999

Last change:01/01/2016

Trico Bar Pava - Trico VKF Pava - Part B

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

1.1. Product identifier : Trico BAR Pava – Trico VKF Pava - Part B

Refer to Section 3 for REACH information

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

Use of the Substance/Mixture : Curing Agent

Restrictions on Use : No data available.

1.3. Details of the supplier of the safety data sheet : Pava Resine Srl
Via Dolomiti, 6/1
35018 S. Martino di L. (PD) ITALIA
Tel +39 049 5953085 Fax +39 049 9460866

Email Address – Technical Information : info@pavaresine.it

Telephone : +39 049 5953085

1.4. Emergency telephone number : Tel Nr. +39 049 5953085

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin irritation - Category 2 H315:Causes skin irritation.

Serious Eye Damage - Category 1 H318:Causes serious eye damage.

Chronic aquatic toxicity - Category 3 H412:Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms/symbols



Signal Word: Danger

Hazard Statements:

H315:Causes skin irritation.

H318:Causes serious eye damage.

H412:Harmful to aquatic life with long lasting effects.

EUH208:Contains 3 - azapentane - 1,5-diamine ; 3,6,9 - triazaundecane -1,11 -diamine; 3,6,9,12 - Tetraazatetradecan -1,14 -diamine. May produce an allergic reaction.

Precautionary Statements:

Prevention : P280a:Wear protective gloves and eye/face protection.
P280e:Wear protective gloves.

Response : P305+P351+P338 :IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 :Immediately call a POISON CENTRE/doctor.
P332+P313 :If skin irritation occurs: Get medical advice/attention.

Disposal : P501:Disposal of contents/container to be specified in accordance with regulations.

2.3. Other hazards

Severe eye irritant.

Moderate skin irritant.

Moderate respiratory irritant.

May cause sensitization by skin contact.

Risk of serious damage to eyes.

SECTION 3: Composition/information on ingredients

Substance/Mixture : Mixture

Components	EINECS / ELINCS Number	CAS Number	Concentration (Weight)
Linseed oil, polymer w/ bis-A, bis-A diglycidyl ether, diethylenetriamine, formaldehyde, glycidyl Ph ether, pentaethylenehexamine	Not Available	68915-81-1	50 %
3,6,9,12-Tetraazatetradecamet	223-775-9	4067-16-7	< 1 %

hylene diamine			
Acetic acid	200-580-7	64-19-7	< 1 %
3,6,9-Triazaundecamethylene diamine	203-986-2	112-57-2	< 1 %
2,2'-Iminodi(ethylamine)	203-865-4	111-40-0	< 1 %

Components	Classification (CLP)	REACH Reg. #
Linseed oil, polymer w/ bis-A, bis-A diglycidyl ether, diethylenetriamine, formaldehyde, glycidyl Ph ether, pentaethylenehexamine	Skin Irrit. 2 ;H315 Eye Dam. 1 ;H318	
3,6,9,12-Tetraazatetradecamethylene diamine	Skin Corr. 1B ;H314 Skin Sens. 1 ;H317 Aquatic Chronic 1 ;H410 Aquatic Acute 1 ;H400	01-219485826-22
Acetic acid	Flam. Liq. 3 ;H226 Skin Corr. 1A ;H314	01-2119475328-30
3,6,9-Triazaundecamethylene diamine	Acute Tox. Derm 4 ;H312 Acute Tox. Oral 4 ;H302 Skin Corr. 1B ;H314 Skin Sens. 1 ;H317 Aquatic Chronic 2 ;H411	01-2119487290-37 (covered by CAS 90640-66-7)
2,2'-Iminodi(ethylamine)	Acute Tox. Inha 2 ;H330 STOT SE 3 ;H335 Acute Tox. Derm 4 ;H312 Acute Tox. Oral 4 ;H302 Skin Corr. 1B ;H314 Skin Sens. 1 ;H317 Acute Tox. Inha 2 ;H330	01-2119473793-27

If REACH registration numbers do not appear the substance is either exempt from registration, does not meet the minimum volume threshold for registration, or the registration date has not yet come due. Refer to section 16 for full text of each relevant hazard statement (H).

CHEMICAL FAMILY: Polyamine Solution.

SECTION 4: First aid measures

4.1. Description of first aid measures

- General advice : Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
- Eye contact : Rinse immediately with plenty of water also under the eyelids for at least 20 minutes. Remove contact lenses.

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- Skin contact : Wash off immediately with plenty of water for at least 20 minutes. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Take off contaminated clothing and shoes immediately. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.
- Ingestion : If a person vomits when lying on his back, place him in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation : If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

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

- Symptoms : Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

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

No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam. Carbon dioxide (CO₂).
Dry chemical.
Dry sand.
Limestone powder.

- Extinguishing media which must not be used for safety reasons. : No data available.

5.2. Special hazards arising from the substance or mixture

- : Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes.

5.3. Advice for firefighters

- : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- : Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.

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- 6.2. Environmental precautions : Construct a dike to prevent spreading. Construct a dike to prevent spreading.
 - 6.3. Methods and material for containment and cleaning up : Approach suspected leak areas with caution. Call Emergency Response number for advice. Place in appropriate chemical waste container.
 - Additional advice : Open enclosed spaces to outside atmosphere. If possible, stop flow of product.
 - 6.4. Reference to other sections : For more information refer to Sections 8 & 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use only in well-ventilated areas. Avoid breathing vapors and/or aerosols. Use personal protective equipment. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

Technical measures/Precautions

Do not store in reactive metal containers.

7.3. Specific end use(s)

Refer to section 1 or the extended SDS if applicable.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)

Acetic acid	Time Weighted Average (TWA): EU ELV	10 ppm	25 mg/m ³
Acetic acid	Time Weighted Average (TWA): EU SCOELS	10 ppm	25 mg/m ³
Acetic acid	Short Term Exposure Limit (STEL): EU SCOELS	20 ppm	50 mg/m ³

If applicable, refer to the extended section of the SDS for further information on CSA.

8.2. Exposure controls

Engineering measures

Provide readily accessible eye wash stations and safety showers.

Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment

Respiratory protection	: Wear appropriate respirator when ventilation is inadequate.
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Butyl-rubber Impervious gloves.
Eye/face Protection	: Chemical resistant goggles must be worn.
Skin and body protection	: Long sleeve shirts and trousers without cuffs.
Environmental exposure controls	: Construct a dike to prevent spreading.
Special instructions for protection and hygiene	: Provide readily accessible eye wash stations and safety showers. Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.
Environmental Exposure Controls	: If applicable, refer to the extended section of the SDS for further information on CSA.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a/b) Physical state/Colour	: Liquid. Yellow.
(c) Odour	: Ammoniacal.
(d) Density	: 1.05 g/cm ³ (65.549 lb/ft ³) at 21 °C (70 °F)
(e) Relative Density	: 1.05 (water = 1)
(f) Melting point / freezing point	: No data available.
(g) Boiling point/range	: 212 °F (100 °C)
(h) Vapor pressure	: 15.00 mmHg at 70 °F (21 °C)
(i) Water solubility	: No data available.
(j) Partition coefficient (n-octanol/water)	: No data available.
(k) pH	: 9.4
(l) Viscosity	: 40,000 mPa.s at 77 °F (25 °C)
(m) Particle characteristics	: No data available.

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- (n) Lower and upper explosion / flammability limits : Not applicable.
- (o) Flash point : > 212 °F (> 100 °C)
- (p) Autoignition temperature : > 150 °C
- (q) Decomposition temperature : No data available.

9.2. Other information

- Explosive properties : No data available.
- Oxidizing properties : No data available.
- Odor threshold : No data available.
- Evaporation rate : No data available.
- Flammability (solid, gas) : Not applicable.
- Relative vapor density : Not applicable.

SECTION 10: Stability and reactivity

- 10.1. Reactivity : Refer to possibility of hazardous reactions and/or incompatible materials sections.
- 10.2. Chemical stability : Stable under normal conditions.
- 10.3. Possibility of hazardous reactions : No data available.
- 10.4. Conditions to avoid : No data available.
- 10.5. Incompatible materials : Mineral acids.
Incompatible with bases.
Oxidizing agents.
- 10.6. Hazardous decomposition products : Carbon monoxide.
Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure

Effects on Eye	:	Severe eye irritation.
Effects on Skin	:	Causes skin irritation.
Inhalation Effects	:	May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.
Ingestion Effects	:	No data available.
Symptoms	:	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

Acute toxicity

Acute Oral Toxicity	:	LD50 : 2,960 mg/kg Species : Rat.
Acute Inhalation Toxicity	:	No data is available on the product itself.
Inhalation - Components		
Acetic acid	LC50 (1 h) : 39 mg/l	Species : Rat.
Diethylenetriamine	LC50 (4 h) : > 0.07 - < 0.3 mg/l	Species : Rat.
Acute Dermal Toxicity	:	LD50 : > 5,000 mg/kg Species : Rabbit. Method : Estimated.
Skin corrosion/irritation	:	Moderate skin irritation.
Serious eye damage/eye irritation	:	No data available.
Sensitization.	:	May cause sensitization by skin contact.

Chronic toxicity or effects from long term exposures

Carcinogenicity	:	No data available.
Reproductive toxicity	:	No data is available on the product itself.
Germ cell mutagenicity	:	No data is available on the product itself.
Specific target organ systemic toxicity (single exposure)	:	Eyes. Skin. Respiratory system. Adverse eye effects (such as conjunctivitis or corneal damage). Eye disease. Skin disorders and Allergies. Adverse skin effects (such as rash, irritation or corrosion). Adverse respiratory effects (such as cough, tightness of chest or shortness of breath). Asthma.
Specific target organ systemic	:	No data available.

toxicity (repeated exposure)

Aspiration hazard : No data available.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity : No data is available on the product itself.

Toxicity to fish - Components

Acetic acid

LC50 (96 h) : 75 mg/l

Species : Bluegill
sunfish (*Lepomis
macrochirus*).

Acetic acid

LC50 (96 h) : 79 mg/l

Species : Fathead
minnow (*Pimephales
promelas*).

Acetic acid

LC50 : 251 mg/l

Species : Fish.

Toxicity to daphnia - Components

Acetic acid

EC50 (48 h) : 65 mg/l

Species : Daphnia

Toxicity to other
organisms

: No data is available on the product itself.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data is available on the product itself.

Bioaccumulation - Components

Acetic acid

Negligible bioaccumulation potential.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

If applicable, refer to the extended section of the SDS for further information on CSA.

12.6. Other adverse effects

No data available.

Effect on the ozone layer
Ozone Depleting Potential : No data available.

Global Warming Potential : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods : Contact supplier if guidance is required.

Contaminated packaging : Dispose of container and unused contents in accordance with federal, state, and local requirements.

SECTION 14: Transport information

ADR

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

RID

Not dangerous goods

Further Information

Not dangerous goods The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact customer service.

SECTION 15: Regulatory information

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

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.

South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

WGK Identification Number: : 1 - slightly water endangering

15.2. Chemical safety assessment

Applicable EXPOSURE SCENARIOS are available at the following link:

www.airproducts.com/esds/4067-16-7 Applicable EXPOSURE SCENARIOS are available at the following link:

www.airproducts.com/esds/111-40-0

SECTION 16: Other information

Ensure all national/local regulations are observed.

Hazard Statements:

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

Indication of Method:

Skin irritation Category 2 Causes skin irritation. Calculation method

Serious Eye Damage Category 1 Causes serious eye damage. Calculation method

Chronic aquatic toxicity Category 3 Harmful to aquatic life with long lasting effects. Calculation method

Abbreviations and acronyms:

ATE - Acute Toxicity Estimate

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

EINECS - European Inventory of Existing Commercial Chemical Substances

ELINCS - European List of Notified Chemical Substances

CAS# - Chemical Abstract Service number

PPE - Personal Protection Equipment

Kow - octanol-water partition coefficient

DNEL - Derived No Effect Level

LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
NOEC - No Observed Effect Concentration
PNEC - Predicted No Effect Concentration
RMM - Risk Management Measure
OEL - Occupational Exposure Limit
PBT - Persistent, Bioaccumulative and Toxic
vPvB - Very Persistent and Very Bioaccumulative
STOT - Specific Target Organ Toxicity
CSA - Chemical Safety Assessment
EN - European Standard
UN - United Nations
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
WGK - Water Hazard Class

Key literature references and sources for data:

ECHA - Guidance on the compilation of safety data sheets
ECHA - Guidance on the application of the CLP Criteria
ARIEL database

Safety data Sheet by

PAVA Resine laboratory.

Interlocutor

PAVA Resine laboratory.

Interlocutor: Pava Resine laboratory Tel. +39 049/5953085 mail: info@pavaresine.it

Note for reader

Information in this safety data sheet have been considered valid by Pava Resine at the moment of preparation or they have been prepared basing on sources considered to be reliable, but user has to investigate and understand other sources of information, follow all laws and procedures about safe handling and use of the product and to define suitability of the product for the expected use. All Pava Resine products are subjected to sell terms and conditions of Pava Resine. PAVA RESINE DO NOT ISSUE ANY WARRANTIES, EXPLICIT OR IMPLICIT, CONCERNING THE PRODUCT OR ITS MERCHANTABILITY OR SUITABILITY FOR ANY PURPOSE OR CONCERNING ACCURACY OF ANY INFORMATION PROVIDED BY PAVA RESINE, except that product consists with specifications. None information in this document represents a sell offer of products. User has to ensure that his activities respect all national and local norms. Since using product conditions cannot be regulated by producer, user has to define conditions that are necessary to use this product safely.