



MATERIAL SAFETY DATA SHEET

AIRVIK-5

Temporary spray adhesive
for positioning fiberglass and carbon fabrics

▶ SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Name of product:	AIRVIK-5
Article:	Spray adhesive
Company name:	«VIK-COMPOSITE» GmbH
Street/POB No.:	Carl-Zeiss-Str. 11
State/city/postal code:	DE Waldstetten 73550
Telephone:	+49 07171 2923
Telefax:	+49 07171 2924
E-mail:	sales@vik-composite.com
Description:	Spray adhesive

▶ SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the mixture

Classification (Regulation (CE) n° 1272/2008)

H222 – Extremely Flammable aerosol Cat 1
H229 - Pressurized container: May burst if heated
H317 – Skin Sens Cat 1
H319 – Causes serious eye irritation Cat 2
H336 – May cause drowsiness or dizziness. STOT SE Cat 3

Classification(according to Directives 67/548/EEC or 1999/45/EC)

F+ ; R12
extremely flammable
Xi R36 - Irritating to eye
R67 - vapors may cause drowsiness and dizziness

2.2. Label elements

GHS Pictograms:



Signal word: DANGER
Risk statements:



H222 – Extremely Flammable aerosol

H229 - Pressurised container: May burst if heated

H317 - May cause an allergic skin reaction

H319 – Causes serious eye irritation.

H336 – May cause drowsiness or dizziness.

Precautionary statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P251 - Do not pierce or burn, even after use

P261 - Avoid breathing dust/fume/gas/mist/vapours/ spray.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear eye protection/face protection.

P302 + 352 - IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.

P337 + P313 - If eye irritation persists: Get medical advice/attention.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Contains:

Rosin

2-propanone

Propan-2-ol

2.3 Other hazards

Any additional information regarding risks to health and/or the environment are described in sections 11 and 12 of the present sheet. For the full text of the R-phrases, see Section 16.

► SECTION 3: INGREDIENTS

3.1. Substances

3.2. Mixture

DIMETHYL ETHER

CAS 115-10-6

EINECS 204-065-8

REACH registration number –

Classification(according to Directives 67/548/EEC or 1999/45/EC)

F+ ; R 12

Classification (Reg 1272/2008/EC) - CLP H220 Flam Gas 1

H280 - Press Gas



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[%] 30-40

2-PROPANONE

CAS 67-64-1

EINECS 200-662-2

REACH registration number 01-2119471330-49

Classification(according to Directives

67/548/EEC or 1999/45/EC)

F ; R 11 - Xi ; R 36 - R 67 - R 66

Classification (Reg 1272/2008/EC) - CLP Eye Irrit. 2 ; H319 : Flam. Liq. 2 ; H225 : STOT

SE 3 ; H336

[%] 20-40

Cellulos, Nitrate

CAS 9004-70-0

EINECS Polymer

REACH registration number -Classification (Reg 1272/2008/EC) - CLP Expl., 1.1, H201

Classification(according to Directives

67/548/EEC or 1999/45/EC)

E: R3

[%] 0,5-1

ROSIN

CAS 8050-09-7

EINECS 232-475-7

REACH registration number

Classification(according to Directives

67/548/EEC or 1999/45/EC)

Xi R43

Classification (Reg 1272/2008/EC) - CLP Skin Sens. 1 H317

[%] 0,5-1

Propan-2-olo

CAS 67-63-0

EINECS 200-661-7

REACH registration number -Classification(according to Directives

67/548/EEC or 1999/45/EC)

F: R11; Xi: R36; R67

Classification (Reg 1272/2008/EC) - CLP Flam. Liq., 2, H225

Eye Irrit., 2, H319

STOT SE, 3, H336

[%] 0,2 – 0,5

For the full text, see Section 16

▶ SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Skin contact: take-off contaminated clothing. Wash skin with plenty of soap and water.
Get medical attention if it occurs irritation



Eyes contact: rinse thoroughly with plenty of water. Remove any contact lenses. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if you develop irritation.

Ingestion: rinse mouth with water in order to dilute the product, do not induce vomiting. Get medical attention immediately.

Inhalation: move the victim to fresh air, remove contaminated clothing, and if breathing is difficult. Get medical attention immediately.

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

Inhalation: May cause fainting. Contains asphyxiant gas

Contact with eyes and skin: the contact with the liquefied gas or cold vapors can cause injury/irritation

Chronic Effects: None

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

May cause sensitization; if this occurs, stop treatment and consult a doctor to start suitable therapy.

► SECTION 5: FIRE FIGHTING MEASURES

Cool the product containers with water jets to prevent the decomposition of the product and the generation of substances potentially harmful to health. Overpressure can develop in containers exposed to fire with the risk of explosion. Always wear full fire safety protective equipment. Collect extinguishing water, which must not be disposed of in public sewers. Dispose of contaminated water and fire residues according to the laws in force.

5.1. Extinguishing media

Suitable extinguishing media:

carbon dioxide, extinguishing foam, chemical powder. For product leaks and spillages which are not burning, finely sprayed water can be used to disperse flammable vapors and protect the personnel involved in eliminating the spillage.

Extinguish material unsuitable for safety reasons:

Do not use water jets. Water is not suitable for extinguishing the burning product, however it can be used to cool closed containers exposed to flames in order to prevent bursting and explosion.

5.2. Special hazards arising from the substance or mixture

Combustion Products: Smoke, CO and CO₂ and other harmful vapors

5.3. Advice for firefighters



Cool by spraying with water the containers to prevent product decomposition and the development of potentially dangerous substance. Always wear full fire prevention. Extinguishing water collected must not be discharged into drains. Dispose of the materials used for extinction according to current regulations

▶ SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition (cigarettes, naked flames, sparks, etc.) from the area of the spillage. If the product is in solid form, avoid the formation of dust by spraying the product with water if there are no contraindications to this measure. For air dispersed dust or vapors, take measures to protect respiration. Block the leak if this can be done without risk. Do not handle damaged containers or spilt product before putting on all the appropriate protective equipment.

Keep people without protective equipment out of the area. For information regarding accidents posing risks to the environment, health, the protection of the respiratory system, ventilation, and personal protection equipment, see the other sections of this sheet.

6.2. Environmental precautions

Contain the spill with an absorbent material such as sand or ground. Do not allow product to contaminate waterways, groundwater and soil. In case of such events notify this to the competent authorities.

6.3. Methods and material for containment and cleaning up

If in liquid form, suck the product into a suitable container (in material that does not react with the product) and absorb residual spilled product with inert absorbent material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc.).

Collect up the bulk of the resulting materials with non-sparking equipment and deposit it in containers for disposal.

If the product is in solid form, collect the spilt product into plastic containers using non-sparking mechanical equipment.

Eliminate residues with water jets if there are no contraindications to this measure. Thoroughly air the area affected by the spillage.

6.4. Reference to other sections

Refer to Sections 8 and 13.

▶ SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling



Temporary spray adhesive for positioning fiberglass and carbon fabrics

Avoid the accumulation of electrostatic charges. Energetic agitation and fast flowing of the liquid through pipes and equipment can result in the formation and accumulation of electrostatic charges due to the low conductivity of the product. To avoid the risk of fire and explosion, never use compressed air in handling the product. Open containers with care because they could be under pressure

7.2. Conditions for safe storage, including any incompatibilities

Store the containers closed and in a well-ventilated area. The vapors can ignite explosively, and it is necessary to avoid the accumulation of vapors by keeping windows and doors open, and ensuring through ventilation. In the absence of adequate ventilation the vapors can accumulate on the ground and ignite, even from a remote source, with the danger of flash back.

Keep away from heat sources, sparks, and naked flames, do not smoke or use matches or lighters. Place containers on the floor when pouring the product and wear anti-static shoes.

7.3. Specific end use(s)

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► SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limit values

ACETONE:

TWA (EC)	500 ppm / 1210 mg/m ³
DNEL (GLOB)	186 mg/kg systemic effects - long term dermal - workers
DNEL (GLOB)	2420 mg/m ³ systemic effects - shortterm - inhalation - workers
DNEL (GLOB)	1210 mg/m ³ systemic effects - long term inhalation - workers
DNEL (GLOB)	62 mg/kg systemic effects - short-term - oral - poulation
DNEL (GLOB)	62 mg/kg systemic effects -long-term -dermal - poulation
DNEL (GLOB)	200 mg/m ³ systemic effects -long-term - inhalation - poulation
PNEC STP (GLOB)	100 mg/l treatment plant PNEC (GLOB) 21 mg/l occasional emission
PNEC (GLOB)	30,4 mg/kg freshwater sediment
PNEC (GLOB)	3,04 mg/kg seawater sediment
PNEC (GLOB)	33,3 mg/kg ground
PNEC (GLOB)	10,6 mg/l freshwater
PNEC (GLOB)	1,06 mg/l seawater
TLV-ACGIH	
TWA/8h	1188 (mg/m ³)



STEL/15min	1782 (mg/m ³)
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DIMETHYL ETHER

Limit value (d.lgs 81/08 annex XXXVIII) 8 h	1.000 ppm
	1.920 mg/m ³

PROPAN-2-OLO

ACGIH (TWA)	200 ppm
ACGIH (STEL)	400 ppm

8.2. Exposure controls

Personal protective equipment

General protective and hygienic measures

On the basis that the implementation of adequate technical measures should always be given priority over personal protection equipment, ensure good ventilation of the workplace with an effective local extraction system or with the outlet of polluted air. If these measures do not maintain the concentration of product below the threshold exposure limits for the workplace, suitable devices should be worn to protect the respiratory system. During use of the product refer to the hazard label for details. When choosing personal protective equipment advice may be requested from your chemical substance suppliers. Personal protection equipment must comply with the current regulations in force as indicated below.

Protective for skin

Wear work clothes with long sleeves and safety footwear for professional use category II (ref. Directive 89/686/CEE and standard EN 344). Personnel should wash with soap and water after removing the protective clothing

Protective mask

If the threshold levels are exceeded for one or more of the substances present in the compound, in relation to daily exposure in the workplace or a section defined by the company prevention and protection service, wear a semi-face mask filter of type FFP3 (ref. standard EN 141). The use of protective devices for the respiratory tracts, like face masks for organic vapors and for dust/sprays, is necessary in the absence of technical measures to limit the exposure of workers. The protection provided by face masks is in any case limited.

Protective gloves

Protect hands with category II work gloves (ref. Directive 89/686/CEE and standard EN 374) in PVC, neoprene, nitril or equivalent. The final decision for the fabric of work gloves must take into account: degradation, time to breakage and permeation. When using compounds the resistance of work gloves must be tested before use since it is not predictable. Gloves have a wear-out time that depends on the duration of exposure



Protective eyewear Wear airtight protective goggles (ref. standard EN 166)

► SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance fine spray / aerosol solution

Odor ketonic

Color Light blue

Odor threshold; no data available

pH no data available

Melting point/freezing point; no data available

Initial boiling point and boiling range < 35°C

Flash point < 0°C

Evaporation rate no data available

Flammability (solid, gas) no data available

Upper/lower flammability or explosive
limits

no data available

Specific weight no data available

Vapor pressure no data available

Vapor density; no data available

Relative density 1.0 0.1 g/cm³

Solubility(ies) Negligible in water

Partition coefficient: n-octanol/water no data available

Auto-ignition temperature no data available

Decomposition temperature no data available

Viscosity no data available

Explosive properties no data available

Oxidizing properties no data available

9.2. Other information

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► SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

This product has no additional hazards related to reactivity than those described below.

10.2. Chemical stability

Stable under normal use conditions. Avoid heat and oxidizing agents

10.3. Possibility of hazardous reactions

Contact with strong oxidizing agents or exposure to high temperatures can cause a fire hazard.



10.4. Conditions to avoid

Prevent the accumulation of electrostatic charges. Keep away from heat, sparks, open flames.

10.5. Incompatible materials

ACETONE: reacts violently with chloroform in a basic environment with danger of fire and explosion (ref. H.C.S.).

10.6. Hazardous decomposition products

The product does not decompose if used in an appropriate way.

► SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product data

The product contains highly volatile substances that can induce significant depression of the central nervous system (CNS), with symptoms that include sleepiness, dizziness, loss of reflexes, narcosis

Substances data

DIMETHYL ETHER

Acute toxicity - inhalation CL50 - RAT - 4 h - 164000 ppm

Eye / Skin corrosion/irritation No data available

Respiratory or skin sensitization No data available

CMR

Mutagenesis Test di ames

S. typhimurium

Negative

Chromosomal aberration in vitro

Human lymphocytes

Negative

OCSE .477

Drosophila melanogaster - male

Negative

Specific target organ toxicity

STOT-single exposure No data available

STOT-repeated exposure I No data available

Aspiration hazard No data available



2-PROPANONE

Oral Rat (8h)

LD50 = 5800 mg/kg

Skin Rabbit

LD50 = > 20 ml/kg

Inhalation Rat (female)

LC50 = 21,09 ppm

Propan-2-olo

Acute toxicity

Skin DL50, rabbit > 12.800 mg/kg

Inhalation CL50, 6 h, Vapors, rat male and female > 10.000 ppm

► SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological data on the mixture are not available. Following are shown ecotoxicological information regarding main substances in the mixture

12.1. Toxicity

ACETONE

EC50 4144 mg/l (fish 96h)

EC50 302 mg/l (algae 96h)

LC50 4042 mg/l (fish 14 days)

LC50 1680 mg/l (daphnia 48h)

DIMETHYL ETHER

CL50 - *Poecilia reticulata* (Guppy) - > 4,1 g/l - 96 h

Daphnia CE50 - *Daphnia magna* > 4,4 g/l - 48 h

Pseudomonas putida - ca. >1.600 mg/l – 30 min

Cellulose, nitrate

CL50 > 5.000 mg/l (*Danio rerio* 96h)

NOEC 100.000 mg/l (*daphnia magna* 48h)

CE50r > 90.000 mg/l (alga *Scenedesmus* sp., 72h)

CE50 (microorganism) 10.000 mg/l (OECD 209 3h)

Propan-2-olo

CL50 9.640 mg/l (*Pimephales promelas* 96h)

CL50 > 1.000 mg/ (*daphnia magna* 24h)

NOEC 1.800 mg/l (alga *Scenedesmus* sp., 7 d)

CE50r > 1.000 mg/l (alga *Scenedesmus* sp., 72h)

CE50 (microorganism) > 1.000 mg/l



12.2. Persistence and degradability

DIMETHYL ETHER

aerobic - 28 d

Result: 5 % - Not immediately biodegradable.
(OECD TG 301 D)

Cellulose, nitrate

> 60 % (28 d Test OECD 301B)

Propan-2-olo

95 % (21 d Test OECD 301)

The substance is biodegradable through non-biological chemical and physical processes (abiotic processes).

Biodegradability: 2% / 28 day difficultly biodegradable - biological oxygen demand (OECD 301C)

hydrolysis: half-life <2 h pH 4 (OECD 111) - half life: 120 h pH 7 (OECD 111) -half period: 12 h pH 9 (OECD 111)

12.3. Bio accumulative potential

Propan-2-olo Koc between 0 e 50

12.4. Mobility in soil

Information not available.

12.5. Results of PBT and vPvB assessment

The product does not contain any relevant substances evaluated as persistent, bio accumulative and toxic (PBT) or very persistent and very bio accumulative.

12.6. Other adverse effects.

not known

► SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Rlf possible reuse the product. Product residues must be classed as special harmful waste. The harmfulness of waste partially containing this product must be assessed on the basis of the legal provisions in force. Disposal must be entrusted to companies authorized for the disposal of waste, in compliance with national legislation and any local regulations



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► SECTION 14: TRANSPORT INFORMATION

Road or rail transport:

Class ADR/RID: 2
UN: 1950
Packing group: --
Label: 2.1
Nr. Kemler: -
Limited quantity: LQ02
Tunnel restriction code: (D)
Technical name: AEROSOL
Special measures: -

Marine transport:

Class IMO: 2
UN: 1950
Packing group:
Label: 2.1
EMS: F-D, S-U
Marine pollutant: NO
Proper shipping name: AEROSOLS
Total exemption in quantity lower than: 1 lt

Air transport:

IATA: 2
UN: 1950
Packing group:
Label: 2.1

Cargo:

Packing instructions: 203
Maximum quantity: 150
Total exemption in quantity
lower than:
1 lt (and 30 kg max for box).

Pass.:

Packing instructions: 203
Maximum quantity: 75
Special instructions:
Proper shipping name: AEROSOLS



▶ SECTION 15: REGULATORY INFORMATION

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

Directive 67/548/CE (classification, packaging and labelling of dangerous substances) further modifications
Directive 1999/45/CE (classification, packaging and labelling of dangerous mixtures) further modifications
Regulation n° 1907/2006/CE (REACH)
Regulation n° 1272/2008/CE (CLP) and following ATP
Regulation n° 453/2010/CE (concerning the preparation of safety data sheets)
D.Lgs 81/2008 (consolidated text on health protection and safety in the workplace) and further modifications
Directive 75/324/CE (concerning aerosol) and further modifications

15.2. Chemical safety assessment.

No data available.

▶ SECTION 16: OTHER INFORMATION

list of relevant R phrases, Hazard statements
H201 - Explosive; mass explosion hazard. Expl 1.1
H220 - Extremely flammable gas. Cat. 1
H222 – Extremely flammable aerosol. Cat. 1
H225 - Highly flammable liquid and vapor. Cat 2
H229 - Pressurized container: May burst if heated. AEROSOL CAT 1
H280 - Contains gas under pressure; may explode if heated.
H317 - May cause an allergic skin reaction. Cat 1
H319 - Causes serious eye irritation. Cat 2
H336 - May cause drowsiness or dizziness STOT SE cat 3
R3 – Extreme risk of explosion by shock, friction, fire or other sources of ignition
R11- Highly flammable
R12 - Extremely flammable
R36 – Irritating to eye
R43 – May cause sensitization by skin contact.
R66 – Repeated exposure may cause skin dryness or cracking
R67 – Vapors may cause drowsiness and dizziness
ACGIH = American Conference of Governmental Industrial Hygienists
CSR = Chemical safety Report
DNEL = Derived no-effect level
EC50 = half maximal effective concentration
IC50 = inhibition concentration, 50%
LC50 = lethal concentration, 50%



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LD50 = Lethal dose

PNEC = Predicted no effect concentration

n.a. = non-applicable

PBT = Persistent, Bio accumulative, Toxic

STOT = Single Toxicity Organ target

(STOT) RE = Repeated exposure

(STOT) SE = single exposure

TLV-TWA = Threshold limit value - time weighted average

TLV-STEL = Threshold limit value – short term exposure limit

UVCB = substances of Unknown or Variable composition

vPvB = very persistent and very bio accumulative

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. VIK-Composite GmbH SAS is relieved from any liability arising from improper uses.