



MATERIAL SAFETY DATA SHEET

AIRVIK-1

Spray adhesive with high epoxy compatibility
for tissue positioning

► SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Name of product:	AIRVIK-1
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:	Adhesive for epoxy composite materials
Size:	500 ml

► SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.

Any additional information concerning the risks for health and/or environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Aerosol, category 1	H222	Extremely flammable aerosol
	H229	Pressurized container: may burst if heated
Eye irritation, category 2	H319	Causes serious eye irritation
Skin irritation, category 2	H315	Causes skin irritation
Skin sensitization, category 1	H317	May cause an allergic skin reaction
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness and dizziness
Hazardous to aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



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Signal word: DANGER

Hazard statements:

H222 Extremely flammable aerosol
H229 Pressurised container: May burst if heated
H319 Causes serious eye irritation
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H336 May cause drowsiness and dizziness
H412 Harmful to aquatic life with long lasting effects
EUH205 Contains epoxy constituents. May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P211 Do not spray on an open flame or other ignition source
P280 Wear protective gloves / eye protection / face protection
P261 Avoid breathing dust/fume/gas/mist/vapours/spray

Contains: 2,2-BIS-(4-(2,3-EPOXYPROPOXY)-PHENYL)-PROPANE
ACETONE
METHYL ETHYL KETONE

2.3 Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

► SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixture

Contains :



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Identification : **x = Conc.%** **Classification 1272/2008 (CLP)**

DIMETHYLETHER

CAS	115-10-6	$30 \leq x < 60$	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC	204-065-8		
INDEX	603-019-00-8		
Reg. No.	01-2119472128-37-0000		

ACETONE

CAS	67-64-1	$10 \leq x < 30$	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC	200-662-2		
INDEX	606-001-00-8		
Reg. No.	01-2119471330-49-XXXX		

2,2-BIS-(4-(2,3-EPOXYPROPOXY)-PHENYL)-PROPANE

CAS	1675-54-3	$5 \leq x < 15$	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC	216-823-5		
INDEX	603-073-00-2		
Reg. No.	01-2119456619-26-XXXX		

METHYL ETHYL KETONE

CAS	78-93-3	$1 \leq x < 10$	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC	201-159-0		
INDEX	606-002-00-3		
Reg. No.	01-2119457290-43-XXXX		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 60,00%

► SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

EYES: remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15/30 minutes, opening the eyelids fully. If the problem persists seek medical advice.

SKIN: remove contaminated clothing. Wash with running water. If the problem persists seek medical advice. Wash contaminated clothing before using it again.



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INGESTION: immediately call a poison center or doctor. Do not induce vomiting. Rinse mouth with running water if the victim is conscious and collaborative. Do not give anything by mouth to an unconscious person. Do not give anything which is not expressly authorized by a doctor.

INHALATION: remove victim to fresh air. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If the problem persists, get medical advice.

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

No specific information is known about the symptoms and effects caused by the product. See section 11 for effects due to substances.

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

Keep the safety data sheet or, failing that, the label available for the medical personnel.

► SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

Water jets.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE.

If overheated, aerosol cans can deform, explode and be propelled at considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS



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Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

▶ SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

▶ SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

INDUSTRIAL USE

Use with a frequency up to 360 days / year for a time not exceeding 8 hours a day. The temperature in the environment of use must not exceed the ambient temperature by more than 20°C. Provide local exhaust ventilation (LEV) where emissions occur (efficiency: 90%).



PROFESSIONAL USE.

Use with a frequency up to 360 days / year for a time not exceeding 8 hours a day. The ambient temperature of use must not exceed the ambient temperature by more than 20°C. Provide local exhaust ventilation (LEV) where emissions occur (efficiency: 90%).

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

Storage class TRGS 510 (Germany): 2B

7.3. Specific end use(s)

Follow the instructions on the product labeled or on the information sheet. Refer to the safe use information if enclosed with this safety data sheet.

▶ SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Regulatory references:

BGR	България	МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г (4 Септември 2018г)
DEU	Deutschland	TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition,published 2018)
GRC	Ελλάδα	ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018
HRV	Hrvatska	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 91/18)
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
SVN	Slovenija	Uradni list Republike Slovenije 04.12.2018 - Uradnem listu RS št. 78 - PRAVILNIK o varovanju delavcev pred tveganji zaradi izpostavljenosti



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EU	OEL EU	kemičnim snovem pri delu Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC ; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

DIMETHYLETHER

Theshhold limit value								
Type	Country		TWA/8h		STEL/15 min		Remarks/Observations	
			mg/m ³	ppm	mg/m ³	ppm		
OEL	DEU		1920	1000				
Predicted no-effect concentration - PNEC								
Normal value in fresh water					0,155		mg/l	
Normal value in marine water					0,016		mg/l	
Normal value for fresh water sediment					0,681		mg/kg	
Normal value for marine water sediment					0,069		mg/kg	
Normal value for water, intermittent release					1,549		mg/l	
Normal value of STP microorganisms					160		mg/l	
Normal value for the terrestrial compartment					0,045		mg/kg	
Health - Derived no-effect level - DNEL / DMEL								
Effects on consumers				Effects on workers				
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI				
Inhalation	NPI	VND	NPI	1131mg/m ³	NPI	VND	NPI	1894 mg/m ³
Skin	NPI	NPI	NPI	NPI	NPI	NPI	NPI	NPI

ACETONE

Theshhold limit value					
Type	Country	TWA/8h		STEL/15 min	Remarks/Observations
		mg/m ³	ppm	mg/m ³ ppm	
TLV	BGR	600		1400	
AGW	DEU	1200	500	2400 1000	
MAK	DEU	1200	500	2400 1000	
VLA	ESP	1210	500		
VLEP	FRA	1210	500	2420 1000	
WEL	GBR	1210	500	3620 1500	
TLV	GRC	1780		3560	
GVI/KGVI	HRV	1210	500		
VLEP	ITA	1210	500		
NDS/NDSch	POL	600		1800	
VLE	PRT	1210	500		
MV	SVN	1210	500		
OEL	EU	1210	500		
TLV-ACGIH		1187	500	1781 750	
Predicted no-effect concentration - PNEC					
Normal value in fresh water				10,6	mg/l
Normal value in marine water				1,06	mg/l
Normal value for fresh water sediment				30,4	mg/kg
Normal value for marine water sediment				3,04	mg/kg



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Normal value for water, intermittent release		21	mg/l
Normal value of STP microorganisms		100	mg/l
Normal value for the terrestrial compartment		2,95	mg/kg
Health - Derived no-effect level - DNEL / DMEL			
Effects on consumers			
Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local
Oral			62 mg/kg bw/d
Inhalation			200 mg/m ³
Skin			62 mg/kg bw/d
Route of exposure	Acute local	Acute systemic	Chronic local
			2420 mg/m ³
			1210 mg/m ³
			186 mg/kg bw/d

2,2-BIS-(4-(2,3-EPOXYPROPOXY)-PHENYL)-PROPANE

Predicted no-effect concentration - PNEC			
Normal value in fresh water		6	mg/l
Normal value in marine water		1	mg/l
Health - Derived no-effect level - DNEL / DMEL			
Effects on consumers			
Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local
Inhalation			12,3 mg/m ³
Skin			8,3 mg/m ³

METHYL ETHYL KETONE

Theshold limit value				
Type	Country	TWA/8h	STEL/15 min	Remarks/Observations
		mg/m ³ ppm	mg/m ³ ppm	
TLV	BGR	590	885	
AGW	DEU	600 200	600 200	SKIN
MAK	DEU	600 200	600 200	SKIN
VLA	ESP	600 200	900 300	
VLEP	FRA	600 200	900 300	SKIN
WEL	GBR	600 200	899 300	SKIN
TLV	GRC	600 200	900 300	
GVI/KGVI	HRV	600 200	900 300	
VLEP	ITA	600 200	900 300	
NDS/NDSch	POL	450	900	SKIN
VLE	PRT	600 200	900 300	
MV	SVN	600 200	900 300	SKIN
OEL	EU	600 200	900 300	
TLV-ACGIH		590 200	885 300	

Predicted no-effect concentration - PNEC		
Normal value in fresh water		55,8 mg/l
Normal value in marine water		55,8 mg/l
Normal value for fresh water sediment		284,74 mg/kg
Normal value for marine water sediment		284,7 mg/kg
Normal of STP microorganisms		709 mg/l
Normal value for the food chain (secondary poisoning)		1000 mg/kg
Normal value for the terrestrial compartment		22,5 mg/kg



Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				31 mg/kg bw/d				
Inhalation				106 mg/m ³				
Skin				412 mg/kg bw/d				

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available; NEA = no exposure expected; NPI = no hazard identified.

ACETONE

Indicator: acetone in urine.

Period: end of shift.

IBE: 50 mg / l

Note: Ns.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

For industrial/professional uses provide local exhaust ventilation (LEV) where emissions occur (dilution efficiency: 90%).

HAND PROTECTION

Use category III gloves (ref. standard EN 374). For definitive choice of gloves material consider: compatibility, degradation, breakthrough time and permeation. Work gloves wear time depends upon duration and type of wear. Suitable gloves (protection factor 2, permeation time 30-60 minutes), material (thickness, mm): butyl rubber (0,7 mm).

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances presented in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).



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Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

The systems of abatement of gaseous effluents should include scrubbers or carbon filters that guarantee an efficiency of more than 90%. Any liquid effluents should be conveyed to a water treatment plant with an efficiency of at least 96.2%. In the case of a municipal waste water treatment plant, the daily flow rate should be at least 2000 m³.

► SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance:	Aerosol	
Colour:	Transparent	
Odour:	Characteristic	
Odour threshold:	1,3 mg/m ³	Remark: Nagata, 2003 Substance: METHYL ETHYL KETONE
pH:	Not applicable	
Melting point/freezing point:	Not applicable	
Initial boiling point:	Not applicable	
Boiling range:	Not applicable	
Flash point:	Not applicable	
Evaporation rate:	Not determined	
Flammability of solids and gases:	Not applicable	
Lower inflammability limit:	3,3 % (V/V)	Substance: DIMETHYLETHER
Upper inflammability limit:	26,2 % (V/V)	Substance: DIMETHYLETHER
Lower explosive limit:	Not applicable	Substance:PROPANE
Upper explosive limit:	Not applicable	Substance:PROPANE
Vapour pressure:	Not available	Substance:ACETONE Temperature: 20 °C



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Vapour density:	Not determined	
Relative density:	0,8	
Solubility:	Insoluble in water	
Partition coefficient: n-octanol/water:	Not determined	
Auto-ignition temperature:	226 °C	Substance: DIMETHYLETHER
Decomposition temperature:	Not determined	
Viscosity:	Not determined	
Explosive properties:	Possible formation of explosive mixtures between air and vapours	
Oxidizing properties:	Not applicable. None of the contained substances has functional groups associated with oxidizing properties	

9.2. Other information

VOC (Directive 2010/75/EC):	85,00 %	-	680,00	g/litre
VOC (volatile carbon):	58,05 %	-	464,41	g/litre

▶ SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions with other substances are foreseeable under normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of usage and storage for 36 months.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

DIMETHYLETHER

May form explosive mixtures with: air.

ACETONE

May react dangerously with: strong oxidizing agents, strong reducing agents. Forms peroxides with: strong oxidizing agents.



2,2-BIS-(4-(2,3-EPOXYPROPOXY)-PHENYL)-PROPANE

May react violently with: strong oxidizing agents.

METHYL ETHYL KETONE

May form peroxides with: air, light, strong oxidizing agents. Risk of explosion on contact with: hydrogen peroxide, nitric acid, sulphuric acid. May react dangerously with: oxidizing agents, trichloromethane, alkalis. Forms explosive mixtures with: air.

10.4. Conditions to avoid

Refer to section 7.

Avoid contact with acids and bases which can deteriorate the can. Avoid exposition to: high temperatures (>50 °C), naked flames, ignition sources, heat sources, overheated surface, heat. Risk of explosion.

DIMETHYLETHER

Avoid exposure to: sources of heat, naked flames.

ACETONE

Avoid exposure to: sources of heat, naked flames.

METHYL ETHYL KETONE

Avoid exposure to: sources of heat

10.5. Incompatible materials

DIMETHYLETHER

Incompatible with: oxidizing agents.

ACETONE

Incompatible with: acids, oxidizing substances.

Compatible materials: steel, stainless steel, aluminium.

Incompatible materials: natural rubber, neoprene.

METHYL ETHYL KETONE

Incompatible with: strong oxidants, inorganic acids, ammonia, copper, chloroform.

Dissolves various plastic materials.

Incompatible materials: viton, PVC, natural rubber, latex, neoprene.

10.6. Hazardous decomposition products

In the event of a fire, the substances contained may generate the following decomposition products:

ACETONE

May develop: ketenes, irritant substances.



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In decomposition develops: carbon oxides.

METHYL ETHYL KETONE

In decomposition develops: carbon oxides.

► SECTION 11: TOXICOLOGICAL INFORMATION

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

ACETONE

Inhalation, dermal.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

ACETONE

Inhalation: sore throat, cough, confusion, headache, dizziness, drowsiness, unconsciousness.

Dermal contact: dry skin.

Eyes: redness, pain, blurred vision, possible corneal damage.

Ingestion: nausea, vomiting.

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:

Not classified (no significant component)

LD50 (Oral) of the mixture:

Not classified (no significant component)

LD50 (Dermal) of the mixture:

Not classified (no significant component)



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LD50 (Oral)	5800 mg/kg rat (Freem JJ, Hayes EP, 1985, J. Toxicol. Env. Health 15: 609-621).
LD50 (Dermal)	7400 mg/kg Guinea pig (Roudabush RL et al., 1965, Toxicol Appl Pharmacol 7: 559-565).
LC50 (Inhalation)	132 mg/l/4h rat (Bruckner JV, Petersen RC, 1981, Toxicol Apl Pharmacol 61: 27-38).

2,2-BIS-(4-(2,3-EPOXYPROPOXY)-PHENYL)-PROPANE

LD50 (Oral)	11000 mg/kg rat (supplier' data)
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DIMETHYLETHER

LD50 (Oral)	> 2000 mg/kg
LD50 (Dermal)	> 2000 mg/kg
LC50 (Inhalation)	308,5 mg/l/4h rat

METHYL ETHYL KETONE

LD50 (Oral)	2193 mg/kg Rat (supplier' data)
LD50 (Dermal)	> 5000 mg/kg Rabbit (supplier' data)
LC50 (Inhalation)	> 5000 ppm/4h (supplier' data)

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

ACETONE

Acute Eye Irritation / Corrosion (similar or equivalent to OECD method 405), rabbit: irritant (source: ECHA website).

RESPIRATORY OR SKIN SENSITISATION

Sensitizing for the skin

ACETONE

Skin sensitization (Guinea Pig Maximization Test): non-sensitizing (source: ECHA website).

GERM CELL MUTAGENICITY



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Does not meet the classification criteria for this hazard class.

ACETONE

In vitro genetic toxicity (Bacterial Reverse Mutation Test, Ames test, similar or equivalent OECD method 471, *S. typhimurium*): negative (source: ECHA website).

In vivo genetic toxicity (Mammalian Erythrocyte Micronucleus Test): negative (source: ECHA website).

CARCINOGENICITY

Does not meet the classification criteria for this hazard class.

ACETONE

Acetone has been used extensively as a carrier in dermal carcinogenicity studies on several mouse species. There is no evidence of an increased incidence of tumors in the control groups treated with acetone alone, demonstrating a lack of carcinogenic potential of acetone (source: ECHA website).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

ACETONE

Exposure to acetone doses of 5000 mg/L in drinking water for 8 weeks or 10000 mg/L in drinking water for 4 weeks had no adverse effects on the fertility of rat males (source: Dalgaard M et al., Pharmacol Toxicol 86: 92-100, 2000).

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness.

Target organ

ACETONE

Central nervous system.

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class.



▶ SECTION 12: ECOLOGICAL INFORMATION

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it has negative effects on aquatic environment.

12.1. Toxicity

ACETONE

LC50 - for Fish	> 6210 mg/l /96h Pimephales promelas
EC50 - for Crustacea	8800 mg/l /48h Daphnia pulex
EC50 - for Algae / Aquatic Plants	> 100 mg/l /72h Selenastrum capricornutum

2,2-BIS-(4-(2,3-EPOXYPROPOXY)-PHENYL)-PROPANE

LC50 - for Fish	1,3 mg/l /96h
EC50 - for Crustacea	2,1 mg/l /48h
EC50 - for Algae / Aquatic Plants	> 11 mg/l /72h

DIMETHYLETHER

LC50 - for Fish	755,549 mg/l /96h
EC50 - for Crustacea	> 4000 mg/l /48h

METHYL ETHYL KETONE

EC50 - for Crustacea	> 100 mg/l /48h (supplier' data)
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12.2. Persistence and degradability

ACETONE

DIMETHYLETHER

2,2-BIS-(4-(2,3-EPOXYPROPOXY)-PHENYL)-PROPANE

Degradability: information not available

DIMETHYLETHER

Rapidly degradable

METHYL ETHYL KETONE

Solubility in water	> 10000 mg/l
Rapidly degradable	

12.3. Bio accumulative potential

ACETONE

Partition coefficient: n-octanol/water	- 0,23
BCF	3



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METHYL ETHYL KETONE

Partition coefficient: n-octanol/water 0,3

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available

► SECTION 13: DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and / or its container must be determined in accordance with the provisions of Directive 2008/98/EC and its amendments, taking into account Regulation (EU) n.1357/2014, Decision (EU) n.955/2014 and Regulation (EU) n.997/2017. Methods for waste management must be evaluated case by case, in relation to the composition of the waste itself.

13.1. Waste treatment methods

Waste management is carried out without endangering human health and without harming the environment and without risk to water, air, soil, plants or animals. Do not dispose of waste into the drains or sewers. The product residues must be disposed of according to current regulations addressing to authorized companies. Waste transport must also be carried out in accordance with the regulations on the transport of dangerous goods.

CONTAMINATED PACKAGING. The generation of waste should be avoided or minimized wherever possible. The incineration and landfilling should be considered when recycling is not feasible. Maintain label(s) on the packaging. Deliver contaminated packaging to an authorized waste management company. The containers and packing materials contaminated with substances or preparations must be treated like the product and sent for recovery or disposal in compliance with national waste management regulations.

EUROPEAN WASTE CATALOGUE CODE. Current legislation does not allow the attribution of EWC codes for wastes containing the substance / preparation referred to herein, as they must be identified on the basis of information not available before use of the product.

The following EWC codes are suggested exclusively for the intact product which has not subject to manipulation and its packaging when disposed empty.



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08 04 09* - waste adhesives and sealants containing organic solvents or other hazardous substances.

15 01 11* - metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers.

PROPERTIES OF WASTE WHICH RENDER IT HAZARDOUS.

Properties of waste which render it hazardous (intact product) in compliance with Regulation (UE) n. 1357/2014:

HP3 Flammable

HP4 Irritant — skin irritation and eye damage

HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP13 Sensitizing

HP14 Ecotoxic

► SECTION 14: TRANSPORT INFORMATION

14.1. UN number

ADR / RID, IMDG, IATA: 1950

14.2. UN proper shipping name

ADR / RID: AEROSOLS
IMDG: AEROSOLS
IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID: Class: 2 Label: 2.1



IMDG: Class: 2 Label: 2.1



IATA: Class: 2 Label: 2.1



14.4. Packing group

ADR / RID, IMDG, IATA: -

14.5. Environmental hazards

ADR / RID: NO



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IMDG: NO
IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: -- Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 150 Kg Maximum quantity: 75 Kg A145, A167, A802	Packaging instructions: 203 Packaging instructions: 203

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant.

▶ SECTION 15: REGULATORY INFORMATION

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

Seveso Category - Directive 2012/18/EC:

P3a

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006 Product:

Point 40

Substances in Candidate List (Art. 59 REACH):

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH):

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None



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Healthcare controls:

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017) WGK 3:

Severe hazard to waters

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances:

DIMETHYLETHER

ACETONE

METHYL ETHYL KETONE

This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

► SECTION 16: OTHER INFORMATION

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Press. Gas (Liq.)	Liquefied gas
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurized container: may burst if heated.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may burst if heated.
H319	Causes serious eye irritation.
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects



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EUH066

Repeated exposure may cause skin dryness or cracking.

EUH205

Contains epoxy constituents. May produce an allergic reaction.

Use descriptor system:

ERC 4

Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC 8a

Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

PC 1

Adhesives, sealants

PROC 11

Non industrial spraying

PROC 7

Industrial spraying

PROC 8b

Transfer of substance or mixture (charging and discharging) at dedicated facilities

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit



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- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
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 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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 14. Regulation (EU) 2018/669 (XI Atp. CLP)
 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
 16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA website
 - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

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. The producer is relieved from any liability arising from improper uses.



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Provide appointed staff with adequate training on how to use chemical products.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.

The data for evaluation of chemical-physical properties are reported in section 9.