

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

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

1.1 Product identifier

Trade name : arecal universal surface sealant 50 ml
Product code : 0893 400 001

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

Use of the Sub-
stance/Mixture : Adhesives and/or sealants
Professional use product
Recommended restrictions : Not applicable
on use

1.3 Details of the supplier of the safety data sheet

Company : RECA NORM GmbH
Am Wasserturm 4
DE-74635 Kupferzell
Telephone : +49 7944 61 0
E-mail address of person : sds@reca.com
responsible for the SDS

1.4 Emergency telephone number

+49 (0)6132 – 84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Cat-
egory 3 : H412: Harmful to aquatic life with long lasting ef-
fects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.
Precautionary statements : **Prevention:**
P273 Avoid release to the environment.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version 7.1 Revision Date: 02.07.2024 SDS Number: 8494689-00009 Date of last issue: 25.06.2024
Date of first issue: 06.05.2021

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate	25852-47-5	Aquatic Chronic 3; H412	>= 50 - < 70
α,α -dimethylbenzyl hydroperoxide	80-15-9 201-254-7 617-002-00-8 01-2119475796-19	Org. Perox. E; H242 Acute Tox. 4; H302 Acute Tox. 3; H331 Acute Tox. 2; H310 Skin Corr. 1; H314 Eye Dam. 1; H318 STOT SE 3; H335 STOT RE 2; H373 (Lungs) Aquatic Chronic 2; H411 specific concentration limit Skin Corr. 1B; H314 >= 10 % Skin Irrit. 2; H315 3 - < 10 % Eye Dam. 1; H318 3 - < 10 % Eye Irrit. 2; H319 1 - < 3 % STOT SE 3; H335 >= 1 %	>= 0,25 - < 1

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version 7.1 Revision Date: 02.07.2024 SDS Number: 8494689-00009 Date of last issue: 25.06.2024
Date of first issue: 06.05.2021

		Acute toxicity estimate Acute oral toxicity: 382 mg/kg Acute inhalation toxicity (vapour): 3 mg/l Acute dermal toxicity: 133,6 mg/kg	
2'-Phenylacetohydrazide	114-83-0 204-055-3	Acute Tox. 3; H301 Acute Tox. 3; H311 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Acute 1; H400 M-Factor (Acute aquatic toxicity): 1 Acute toxicity estimate Acute oral toxicity: 270 mg/kg Acute dermal toxicity: 300,03 mg/kg	$\geq 0,1 - < 0,25$
p-Benzoquinone	106-51-4 203-405-2 606-013-00-3	Flam. Sol. 1; H228 Acute Tox. 3; H301 Acute Tox. 3; H331 Skin Corr. 1; H314 Eye Dam. 1; H318 Skin Sens. 1B; H317 Muta. 2; H341 STOT SE 3; H336 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10 Acute toxicity estimate Acute oral toxicity: 130 mg/kg Acute inhalation tox-	$\geq 0,0025 - < 0,025$

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

		icity (dust/mist): 0,5001 mg/l	
--	--	-----------------------------------	--

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Protection of first-aiders : No special precautions are necessary for first aid responders.
- If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.
- In case of skin contact : Wash with water and soap as a precaution.
Get medical attention if symptoms occur.
- In case of eye contact : Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
Nitrogen oxides (NO_x)
Sulphur oxides
Fluorine compounds

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

5.3 Advice for firefighters

- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
-

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

6.2 Environmental precautions

- Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up with inert absorbent material.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version 7.1 Revision Date: 02.07.2024 SDS Number: 8494689-00009 Date of last issue: 25.06.2024
Date of first issue: 06.05.2021

- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep in properly labelled containers. Store in accordance with the particular national regulations.
- Advice on common storage : Do not store with the following product types:
Strong oxidizing agents
Gases
- Storage class (TRGS 510) : 10
- Storage period : 12 Months
- Recommended storage temperature : 20 °C

7.3 Specific end use(s)

- Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Silicon dioxide	7631-86-9	AGW (Inhalable fraction)	4 mg/m ³ (Silica)	DE TRGS 900
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		MAK (measured as the alveolate fraction)	0,02 mg/m ³	DE DFG MAK
	Peak-limit: excursion factor (category): 8; II			
	Further information: Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version 7.1 Revision Date: 02.07.2024 SDS Number: 8494689-00009 Date of last issue: 25.06.2024
Date of first issue: 06.05.2021

Polytetrafluoroethylene	9002-84-0	MAK (measured as the alveolate fraction)	0,3 mg/m3	DE DFG MAK
Peak-limit: excursion factor (category): 8; II				
Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed				
		MAK (inhalable fraction)	4 mg/m3	DE DFG MAK
Peak-limit: excursion factor (category): 8; II				
Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed				

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	Workers	Inhalation	Long-term systemic effects	4,19 mg/m3
	Workers	Skin contact	Long-term systemic effects	2,381 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1,035 mg/m3
	Consumers	Skin contact	Long-term systemic effects	1,190 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	0,595 mg/kg bw/day
Silicon dioxide	Workers	Inhalation	Long-term systemic effects	4 mg/m3
α,α -dimethylbenzyl hydroperoxide	Workers	Inhalation	Long-term systemic effects	6 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	Fresh water	0,104 mg/l
	Marine water	0,0104 mg/l
	Intermittent use/release	1,044 mg/l
	Fresh water sediment	104,403 mg/kg
	Marine sediment	104,403 mg/kg
	Soil	29,024 mg/kg
	Sewage treatment plant	12,304 mg/l
α,α -dimethylbenzyl hydroperoxide	Fresh water	0,0031 mg/l
	Marine water	0,00031 mg/l
	Freshwater - intermittent	0,031 mg/l
	Sewage treatment plant	0,35 mg/l
	Fresh water sediment	0,023 mg/kg dry weight (d.w.)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version 7.1 Revision Date: 02.07.2024 SDS Number: 8494689-00009 Date of last issue: 25.06.2024
Date of first issue: 06.05.2021

	Marine sediment	0,0023 mg/kg dry weight (d.w.)
	Soil	0,0029 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

Eye/face protection : Please follow all applicable local/national requirements when selecting protective measures for a specific workplace.

Wear the following personal protective equipment:

Safety glasses

Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

Equipment should conform to DIN EN 166

Hand protection

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : $\geq 1,8$ mm
Directive : Equipment should conform to DIN EN 374

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : $\geq 0,35$ mm
Directive : Equipment should conform to DIN EN 374

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Skin and body protection : Skin should be washed after contact.

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
Equipment should conform to DIN EN 143

Filter type : Particulates type (P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

Physical state	:	liquid
Colour	:	orange
Odour	:	characteristic
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	271 °C
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Ignitable (see flash point)
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	100 - < 200 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	substance/mixture is non-soluble (in water)
Viscosity	:	
Viscosity, dynamic	:	28.000 mPa.s (20 °C)
Viscosity, kinematic	:	No data available
Solubility(ies)	:	
Water solubility	:	practically insoluble

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

Partition coefficient: n-octanol/water : Not applicable

Vapour pressure : No data available

Relative density : No data available

Density : 1,05 g/cm³ (20 °C)

Relative vapour density : No data available

Particle characteristics
Particle size : Not applicable

9.2 Other information

Explosives : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Evaporation rate : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Components:

2-(2-Methylprop-2-enyloxy)ethyl 2-methylprop-2-enoate:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Acute dermal toxicity : LD50 (Mouse): > 2.000 mg/kg

α,α -dimethylbenzyl hydroperoxide:

Acute oral toxicity : LD50 (Rat, male): 382 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 3 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Expert judgement
Remarks: Based on national or regional regulation.

Acute dermal toxicity : LD50 (Rabbit, male): 133,6 mg/kg

2'-Phenylacetohydrazide:

Acute oral toxicity : LD50 (Mouse): 270 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 300 - 2.000 mg/kg
Remarks: Based on data from similar materials

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

p-Benzoquinone:

Acute oral toxicity : LD50 (Rat): 130 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 0,5001 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgement
Remarks: Based on national or regional regulation.

Skin corrosion/irritation

Not classified based on available information.

Components:

2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate:

Species : Rabbit
Result : No skin irritation
Remarks : Based on data from similar materials

α,α -dimethylbenzyl hydroperoxide:

Species : Rabbit
Result : Corrosive after 4 hours or less of exposure

2'-Phenylacetohydrazide:

Species : Rabbit
Result : Skin irritation
Remarks : Based on data from similar materials

p-Benzoquinone:

Species : reconstructed human epidermis (RhE)
Method : OECD Test Guideline 431

Result : Corrosive after 4 hours or less of exposure

Serious eye damage/eye irritation

Not classified based on available information.

Components:

2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation
Remarks : Based on data from similar materials

α,α -dimethylbenzyl hydroperoxide:

Species : Rabbit

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

Result : Irreversible effects on the eye

2'-Phenylacetohydrazide:

Species : Rabbit
Result : Irritation to eyes, reversing within 21 days
Remarks : Based on data from similar materials

p-Benzoquinone:

Result : Irreversible effects on the eye
Remarks : Based on skin corrosivity.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

p-Benzoquinone:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : positive
Remarks : Based on data from similar materials

Assessment : Probability or evidence of low to moderate skin sensitisation rate in humans

Germ cell mutagenicity

Not classified based on available information.

Components:

2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

α,α -dimethylbenzyl hydroperoxide:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: positive

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: positive

Test Type: Chromosome aberration test in vitro

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

Result: positive

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Skin contact
Result: negative

Germ cell mutagenicity- Assessment : Weight of evidence does not support classification as a germ cell mutagen.

2'-Phenylacetohydrazide:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: positive

p-Benzoquinone:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: positive

Test Type: in vitro micronucleus test
Result: positive

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: positive

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: positive

Germ cell mutagenicity- Assessment : Positive result(s) from in vivo non-mammalian somatic cell mutagenicity tests, supported by positive results from in vitro mutagenicity assays.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Components:

2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative
Remarks: Based on data from similar materials

α,α -dimethylbenzyl hydroperoxide:

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

STOT - single exposure

Not classified based on available information.

Components:

α,α -dimethylbenzyl hydroperoxide:

Assessment : May cause respiratory irritation.

p-Benzoquinone:

Assessment : May cause respiratory irritation.
Remarks : Based on national or regional regulation.

Assessment : May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Components:

α,α -dimethylbenzyl hydroperoxide:

Exposure routes : Inhalation
Target Organs : Lungs
Assessment : Shown to produce significant health effects in animals at concentrations of >0.2 to 1 mg/l/6h/d.

Repeated dose toxicity

Components:

2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate:

Species : Rat
NOAEL : 1.000 mg/kg
Application Route : Ingestion
Exposure time : 56 Days

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

Method	:	OECD Test Guideline 422
Remarks	:	Based on data from similar materials
Species	:	Rat
LOAEL	:	> 1 mg/l
Application Route	:	inhalation (vapour)
Exposure time	:	90 Days
Method	:	OECD Test Guideline 413
Remarks	:	Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): 19,02 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l
aquatic invertebrates Exposure time: 48 h

α,α -dimethylbenzyl hydroperoxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3,9 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 18,84 mg/l
aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : ErC50 (Desmodesmus subspicatus (green algae)): 3,1 mg/l
plants Exposure time: 72 h
Method: OECD Test Guideline 201

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

NOEC (Desmodesmus subspicatus (green algae)): 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

2'-Phenylacetohydrazide:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 0,1 - 1 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity) : 1

p-Benzoquinone:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0,045 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,059 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 1,5 mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 10

Toxicity to microorganisms : EC50 (activated sludge): 12 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

M-Factor (Chronic aquatic toxicity) : 10

12.2 Persistence and degradability

Components:

2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate:

Biodegradability : Result: Readily biodegradable.
Remarks: Based on data from similar materials

α,α -dimethylbenzyl hydroperoxide:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 3 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

2'-Phenylacetohydrazide:

Biodegradability : Result: Readily biodegradable.
Remarks: Based on data from similar materials

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

p-Benzoquinone:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 56 %
Exposure time: 28 d
Method: OECD Test Guideline 301A

12.3 Bioaccumulative potential

Components:

2-(2-Methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate:

Partition coefficient: n- : log Pow: < 4
octanol/water Method: OECD Test Guideline 117

α,α -dimethylbenzyl hydroperoxide:

Partition coefficient: n- : log Pow: 1,6
octanol/water Method: OECD Test Guideline 117

p-Benzoquinone:

Partition coefficient: n- : log Pow: 0,2
octanol/water Method: OECD Test Guideline 107

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product : Dispose of in accordance with local regulations.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
Do not dispose of waste into sewer.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.
- Waste Code : The following Waste Codes are only suggestions:
- used product
08 04 09, waste adhesives and sealants containing organic solvents or other hazardous substances
 - unused product
08 04 09, waste adhesives and sealants containing organic solvents or other hazardous substances
 - uncleaned packagings
15 01 10, packaging containing residues of or contaminated by hazardous substances
- Acc. Packaging Act properly emptied packaging:
Properly emptied, non-contaminated packaging of non-hazardous products can be supplied to a system for the collection of sales packaging.

SECTION 14: Transport information

14.1 UN number or ID number

- ADN : Not regulated as a dangerous good
- ADR : Not regulated as a dangerous good
- RID : Not regulated as a dangerous good
- IMDG : Not regulated as a dangerous good
- IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

- ADN : Not regulated as a dangerous good
- ADR : Not regulated as a dangerous good
- RID : Not regulated as a dangerous good

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADN : Not regulated as a dangerous good

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.4 Packing group

ADN : Not regulated as a dangerous good

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 75, 3

Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not.

If you intend to use this product as

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

tattoo ink, please contact your vendor.

Formaldehyde (Number on list 77, 72, 28)
Cumene (Number on list 28)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

Water hazard class (Germany) : WGK 2 obviously hazardous to water
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : 5.2.1: Total dust:
Not applicable
5.2.2: Inorganic substances in powdered form:
Not applicable
5.2.4: Inorganic substances in gaseous form:
Not applicable
5.2.5: Organic Substances:
Class 1: 0,01 % p-Benzoquinone
5.2.7.1.1: Carcinogenic substance:
Class 1: 0,1 % Cumene
5.2.7.1.1: Quartz fine dust PM4:
Not applicable
5.2.7.1.1: Formaldehyde:
others: < 0,01 % Formaldehyde
5.2.7.1.1: fibres:
Not applicable
5.2.7.2: Poorly degradable, easily enrichable and highly toxic organic substances:
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 0,32 %, 3,41 g/l
Remarks: VOC content excluding water

Other regulations:

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Other information : Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements

H228	: Flammable solid.
H242	: Heating may cause a fire.
H301	: Toxic if swallowed.
H302	: Harmful if swallowed.
H310	: Fatal in contact with skin.
H311	: Toxic 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.
H319	: Causes serious eye irritation.
H331	: Toxic if inhaled.
H335	: May cause respiratory irritation.
H336	: May cause drowsiness or dizziness.
H341	: Suspected of causing genetic defects.
H373	: May cause damage to organs through prolonged or repeated exposure.
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.
H412	: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Flam. Sol.	: Flammable solids
Muta.	: Germ cell mutagenicity
Org. Perox.	: Organic peroxides
Skin Corr.	: Skin corrosion
Skin Irrit.	: Skin irritation

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
DE DFG MAK	:	Germany. MAK BAT Annex IIa
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
DE DFG MAK / MAK	:	MAK value
DE TRGS 900 / AGW	:	Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Classification of the mixture:

Aquatic Chronic 3 H412

Classification procedure:

Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



arecal universal surface sealant 50 ml

Version	Revision Date:	SDS Number:	Date of last issue: 25.06.2024
7.1	02.07.2024	8494689-00009	Date of first issue: 06.05.2021

considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

DE / EN