

Aduro Vitea G05

Version number: 4.0

Revision: 2023-10-17
Date of issue: 2023-10-17:

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

1.1 Product identifier

Trade name **Aduro Vitea G05** **2651a:**
Product number 2651000105

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

Relevant identified uses Coating material for industrial or professional end-uses.
Uses advised against Any use not listed above.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

ADLER-Werk Lackfabrik Johann Berghofer GmbH & Co KG
Bergwerkstraße 22
A-6130 Schwaz
Austria

Telephone: +4352426922713
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Telephone
+43 5242 6922-713
Mon - Thu 07:00 AM - 04:25 PM
Fri 07:00 AM - 12:15 PM

1.4 Emergency telephone number

Country	Name	Telephone
United Kingdom	Guy's & St Thomas' Poisons Unit	+44 (0)20 7188 0100

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

Hazard class	Category	Hazard class and category	Hazard statement
flammable liquid	2	Flam. Liq. 2	H225
specific target organ toxicity - single exposure (narcotic effects, drowsiness)	3	STOT SE 3	H336
hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

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- Signal word danger

- Pictograms

GHS02, GHS07

**- Hazard statements**

H225 Highly flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing mist/vapours/spray.
P273 Avoid release to the environment.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents, container in accordance with national regulations.

- Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.
EUH208 Contains polyamide wax, Hydroxyphenyl-benzotriazole derivative. May produce an allergic reaction.

- Hazardous ingredients for labelling

n-butyl acetate, 2-methoxy-1-methylethyl acetate, Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics, butanone

2.3 Other hazards

Keep out of reach of children and do not empty into the drains. Dispose remainders properly (collection of hazardous waste, disposal companies). Empty containers must be entered into the recycling system. The usual safety precautions must be observed during processing of the product.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Acrylic resins, cellulose acetate butyrate and additives in organic solvents.

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Name of substance	Identifier	Wt%	Classification acc. to GHS
isobutyl acetate	CAS No 110-19-0 EC No 203-745-1 Index No 607-026-00-7	25 – < 50	Flam. Liq. 2 / H225
n-butyl acetate	CAS No 123-86-4 EC No 204-658-1 Index No 607-025-00-1	25 – < 50	Flam. Liq. 3 / H226 STOT SE 3 / H336
2-methoxy-1-methylethyl acetate	CAS No 108-65-6 EC No 203-603-9 Index No 607-195-00-7	5 – < 10	Flam. Liq. 3 / H226 STOT SE 3 / H336
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	CAS No 64742-49-0 EC No 920-750-0	3 – < 5	Flam. Liq. 2 / H225 STOT SE 3 / H336 Asp. Tox. 1 / H304 Aquatic Chronic 2 / H411
butanone	CAS No 78-93-3 EC No 201-159-0 Index No 606-002-00-3	3 – < 5	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336
propan-2-ol	CAS No 67-63-0 EC No 200-661-7 Index No 603-117-00-0	3 – < 5	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336
cellulose nitrate	CAS No 9004-70-0 Index No 603-037-01-3	1 – < 3	Expl. 1.1 / H201
Hydroxyphenyl-benzotriazole derivative	CAS No 104810-47-1 104810-48-2 EC No 400-830-7 Index No 607-176-00-3	0.1 – < 0.3	Skin Sens. 1 / H317 Aquatic Chronic 2 / H411

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Name of substance	Identifier	Wt%	Classification acc. to GHS
polyamide wax	EC No 434-430-9	0.1 – <0.3	Skin Sens. 1B / H317 STOT RE 2 / H373 Aquatic Chronic 4 / H413

For full text of abbreviations: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

Take off contaminated clothing. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Do not use any solvents or thinners!.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Keep at rest. IF SWALLOWED: Immediately call a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂), BC-powder, Water spray, Alcohol resistant foam, Sand

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Thick smoke may occur in case of a fire. Inhaling the decomposed products may cause serious damage to health. The formation of explosive dust-air-mixtures is possible. Upon contact with air, the vapours may form an explosive mixture. . Combustible.

Hazardous combustion products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

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5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Provision of sufficient ventilation. Control of dust.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains, Fill contaminated material in the original container or any other suitable one and dispose it in accordance with point 13.

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feed-stuffs.

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7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Protect from sunlight.

Control of effects

Do not pierce or burn, even after use. Protect from sunlight. Store in a well-ventilated place. Protect from sunlight. . Close the open container carefully and keep it straight to prevent leakage. Store in the original container. Storage temperature of 0 °C/32 °F and up to 50 °C/122 °F.

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
EU	2-methoxy-1-methylethyl acetate	108-65-6	IOEL V	50	275	100	550			H	2000/39/EC
EU	isobutyl acetate	110-19-0	IOEL V	50	241	150	723				2019/1831/EU
EU	n-butyl acetate	123-86-4	IOEL V	50	241	150	723				2019/1831/EU
EU	ethyl methyl ketone	78-93-3	IOEL V	200	600	300	900				2000/39/EC
GB	1-methoxy-2-propyl acetate	108-65-6	WEL	50	274	100	548				EH40/2005
GB	isobutyl acetate	110-19-0	WEL	150	724	187	903				EH40/2005
GB	silica, amorphous	112926-00-8	WEL		6					i	EH40/2005
GB	silica, amorphous	112926-00-8	WEL		2.4					r	EH40/2005

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Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
GB	butyl acetate	123-86-4	WEL	150	724	200	966				EH40/2005
GB	propan-2-ol	67-63-0	WEL	400	999	500	1,250				EH40/2005
GB	butan-2-one (methyl ethyl ketone)	78-93-3	WEL	200	600	300	899				EH40/2005

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
H	absorbed through the skin
i	inhalable fraction
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Biological limit values						
Country	Name of agent	Parameter	Notation	Identifier	Value	Source
GB	butan-2-one	ethyl methyl ketone		BMGV	70 µmol/l	EH40/2005

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
isobutyl acetate	110-19-0	DNEL	300 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
isobutyl acetate	110-19-0	DNEL	600 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
isobutyl acetate	110-19-0	DNEL	300 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
isobutyl acetate	110-19-0	DNEL	600 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
isobutyl acetate	110-19-0	DNEL	10 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
isobutyl acetate	110-19-0	DNEL	10 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
2-methoxy-1-methylethyl acetate	108-65-6	DNEL	275 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
2-methoxy-1-methylethyl acetate	108-65-6	DNEL	550 mg/m ³	human, inhalatory	worker (industry)	acute - local effects

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Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
2-methoxy-1-methylethyl acetate	108-65-6	DNEL	796 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	64742-49-0	DNEL	2,085 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	64742-49-0	DNEL	300 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
butanone	78-93-3	DNEL	600 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
butanone	78-93-3	DNEL	1,161 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
propan-2-ol	67-63-0	DNEL	871 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
propan-2-ol	67-63-0	DNEL	77 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	DNEL	0.35 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	DNEL	0.5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
isobutyl acetate	110-19-0	PNEC	0.17 mg/l	aquatic organisms	freshwater	short-term (single instance)
isobutyl acetate	110-19-0	PNEC	0.017 mg/l	aquatic organisms	marine water	short-term (single instance)
isobutyl acetate	110-19-0	PNEC	200 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
isobutyl acetate	110-19-0	PNEC	0.877 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
isobutyl acetate	110-19-0	PNEC	0.088 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
isobutyl acetate	110-19-0	PNEC	0.075 mg/kg	terrestrial organisms	soil	short-term (single instance)
2-methoxy-1-methylethyl acetate	108-65-6	PNEC	0.635 mg/l	aquatic organisms	freshwater	short-term (single instance)

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
2-methoxy-1-methylethyl acetate	108-65-6	PNEC	0.064 mg/l	aquatic organisms	marine water	short-term (single instance)
2-methoxy-1-methylethyl acetate	108-65-6	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2-methoxy-1-methylethyl acetate	108-65-6	PNEC	3.29 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2-methoxy-1-methylethyl acetate	108-65-6	PNEC	0.329 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2-methoxy-1-methylethyl acetate	108-65-6	PNEC	0.29 mg/kg	terrestrial organisms	soil	short-term (single instance)
butanone	78-93-3	PNEC	55.8 mg/l	aquatic organisms	freshwater	short-term (single instance)
butanone	78-93-3	PNEC	55.8 mg/l	aquatic organisms	marine water	short-term (single instance)
butanone	78-93-3	PNEC	709 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
butanone	78-93-3	PNEC	284.7 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
butanone	78-93-3	PNEC	284.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
butanone	78-93-3	PNEC	22.5 mg/kg	terrestrial organisms	soil	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	0.002 mg/l	aquatic organisms	freshwater	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	3.37 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	0.337 mg/kg	aquatic organisms	marine sediment	short-term (single instance)

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	2 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection (EN 166).

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Use protective gloves made of nitrile rubber as spray protection for short-term work. Material strength: 0.2mm, penetration time \geq 480 min

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

During spraying wear suitable respiratory equipment. Combination filtering device (EN 141). Particulate filter device (EN 143). Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	78 °C

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Flammability	flammable liquid in accordance with GHS criteria
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Lower and upper explosion limit

Lower explosion limit (LEL)	1 vol%
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Upper explosion limit (UEL)	15 vol%
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Flash point	7 °C
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Auto-ignition temperature	180 °C
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pH (value)	not determined
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Kinematic viscosity	23 – 25 ^S / _{DIN 4mm} at 20 °C
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Solubility(ies)

Water solubility	not miscible in any proportion
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Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available
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Vapour pressure	101 hPa at 20 °C
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Density and/or relative density

Density	0.9057 ^g / _{cm³} at 20 °C
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Relative vapour density	information on this property is not available
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Particle characteristics	not relevant (liquid)
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Other safety parameters

Explosive properties	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
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9.2 Other information

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Information with regard to physical hazard classes	there is no additional information
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Oxidisers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to GHS

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Contains polyamide wax, Hydroxyphenyl-benzotriazole derivative. May produce an allergic reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

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Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Other information

Repeated exposure may cause skin dryness or cracking.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life with long lasting effects.

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
isobutyl acetate	110-19-0	EC50	34.2 mg/l	aquatic invertebrates	21 d
isobutyl acetate	110-19-0	LC50	43.5 mg/l	aquatic invertebrates	21 d
n-butyl acetate	123-86-4	EC50	34.2 mg/l	aquatic invertebrates	21 d
n-butyl acetate	123-86-4	LC50	43.5 mg/l	aquatic invertebrates	21 d
2-methoxy-1-methyl-ethyl acetate	108-65-6	LC50	63.5 mg/l	fish	14 d
2-methoxy-1-methyl-ethyl acetate	108-65-6	EC50	>100 mg/l	aquatic invertebrates	21 d
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	64742-49-0	EL50	1.6 mg/l	aquatic invertebrates	21 d
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	64742-49-0	EC50	0.23 mg/l	aquatic invertebrates	21 d
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	LC50	3.8 mg/l	fish	4 d
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	EC50	>0.78 mg/l	aquatic invertebrates	21 d
polyamide wax		EC50	>100 mg/l	microorganisms	3 h

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12.2 Persistence and degradability

Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
isobutyl acetate	110-19-0	oxygen depletion	60 %	5 d		ECHA
n-butyl acetate	123-86-4	oxygen depletion	80 %	5 d		ECHA
2-methoxy-1-methylethyl acetate	108-65-6	carbon dioxide generation	90 %	28 d		ECHA
2-methoxy-1-methylethyl acetate	108-65-6	oxygen depletion	60 %	5.9 d		ECHA
2-methoxy-1-methylethyl acetate	108-65-6	DOC removal	99 %	28 d		ECHA
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	64742-49-0	oxygen depletion	83 %	16 d		ECHA
butanone	78-93-3	oxygen depletion	98 %	28 d		ECHA
propan-2-ol	67-63-0	oxygen depletion	8 %	3 d		ECHA
propan-2-ol	67-63-0	carbon dioxide generation	0 %	3 d		ECHA
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	oxygen depletion	12 %	28 d		ECHA
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	carbon dioxide generation	24 %	28 d		ECHA
polyamide wax		carbon dioxide generation	6 %	28 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

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12.6 Endocrine disrupting properties

Not listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

List of wastes

- Product

08 01 11* waste paint and varnish containing organic solvents or other hazardous substances

- Packagings

15 01 10* packaging containing residues of or contaminated by hazardous substances

Disposal methods:

Product

Waste production should be avoided or minimised if possible.

Do not empty into the drains. Avoid releasing the product into the environment. Waste, containers must be removed, disposed in a safe way.

Packagings

Waste production should be avoided or minimised if possible.

Packaging waste should be recycled. Burning or landfilling should only be considered if recycling is not feasible.

Notes on disposal:

Product

Disposal of this product and its dissolutions and by-products must be carried out in accordance with the environmental protection requirements and waste disposal laws as well as the requirements of the local authorities at all times. Excess must be handed over, disposed to a recognised waste disposal company (disposal company/recycling company).

Packagings

With the aid of the information provided in this safety data sheet, the responsible authorities must be consulted regarding classification of empty containers, packaging. Empty containers should be disposed, recycled according to type. Licenced containers, packaging can be disposed free of charge via system partners, where applicable. Containers with residual contents must be disposed in accordance with local and national legal provisions.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

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SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID	UN 1263
IMDG-Code	UN 1263
ICAO-TI	UN 1263

14.2 UN proper shipping name

ADR/RID	PAINT
IMDG-Code	PAINT
ICAO-TI	Paint

14.3 Transport hazard class(es)

ADR/RID	3
IMDG-Code	3
ICAO-TI	3

14.4 Packing group

ADR/RID	II
IMDG-Code	II
ICAO-TI	II

14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) - Additional information

Classification code	F1
Danger label(s)	3



Special provisions (SP)	163, 367, 640D, 650
Excepted quantities (EQ)	E2
Limited quantities (LQ)	5 L
Transport category (TC)	2
Tunnel restriction code (TRC)	D/E
Hazard identification No	33

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Emergency Action Code 3YE

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) - Additional information

Classification code F1

Danger label(s) 3



Special provisions (SP) 163, 367, 640D, 650

Excepted quantities (EQ) E2

Limited quantities (LQ) 5 L

Transport category (TC) 2

Hazard identification No 33

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant -

Danger label(s) 3



Special provisions (SP) 163, 367

Excepted quantities (EQ) E2

Limited quantities (LQ) 5 L

EmS F-E, S-E

Stowage category B

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Danger label(s) 3



Special provisions (SP) A3, A72, A192

Excepted quantities (EQ) E2

Limited quantities (LQ) 1 L

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Relevant provisions of the European Union (EU)**

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Seveso Directive

2012/18/EU (Seveso III)				
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
P5c	flammable liquids (cat. 2, 3)	5,000	50,000	51)

Notation

51) flammable liquids, categories 2 or 3 not covered by P5a and P5b

Deco-Paint Directive (2004/42/EC)

VOC content	84.04 % 770 g/l
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Industrial Emissions Directive (IED) (2010/75/EU)

VOC content	84.04 % 761.1 g/l
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Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Regulation on the marketing and use of explosives precursors

Explosives precursors which are subject to restrictions					
Name of substance	CAS No	Type of registration	Remarks	Limit value	Upper limit value for the purpose of licensing under Article 5(3)
acetone	67-64-1	Annex II			

Legend

annex II Substances on their own or in mixtures or in substances for which suspicious transactions shall be reported

Regulation on drug precursors

Name of substance	CAS No	Classification	CN Code	Threshold level
acetone	67-64-1	Category 3	2914 11 00	
butanone	78-93-3	Category 3	2914 12 00	

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Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

National regulations (GB)

Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	Name acc. to inventory	CAS No	No
Aduro Vitea G05	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		3

International conventions

UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances

Name of substance	CAS No	Listed in	HS code
butanone	78-93-3	Table II	2914.12

15.2 Chemical safety assessment

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

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
1.1	Product identifier: Trade name Aduro Vitea 2651a:	Product identifier: Trade name Aduro Vitea G05 2651a:	yes
2.2		- Supplemental hazard information: change in the listing (table)	yes
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.	yes
3.2		Description of the mixture: change in the listing (table)	yes
8.1		Relevant DNELs of components of the mixture: change in the listing (table)	yes
8.1		Relevant PNECs of components of the mixture: change in the listing (table)	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
8.2	Hand protection: Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Use protective gloves made of butyl rubber as spray protection for short-term work. Material strength: 0.5mm, penetration time \geq 480 min.	Hand protection: Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Use protective gloves made of nitrile rubber as spray protection for short-term work. Material strength: 0.2mm, penetration time \geq 480 min	yes
9.1	Auto-ignition temperature: not applicable	Auto-ignition temperature: 180 °C	yes
9.1	Solubility(ies): not determined	Solubility(ies)	yes
9.1		Water solubility: not miscible in any proportion	yes
11.1	Respiratory or skin sensitisation: Contains 12-hydroxy-N-[6-(12-hydroxyoctadecanamido)hexyl]octadecanamide, Hydroxyphenyl-benzotriazole derivative. May produce an allergic reaction.	Respiratory or skin sensitisation: Contains polyamide wax, Hydroxyphenyl-benzotriazole derivative. May produce an allergic reaction.	yes
12.1		Aquatic toxicity (chronic) of components of the mixture: change in the listing (table)	yes
12.2		Degradability of components of the mixture: change in the listing (table)	yes
15.1		Regulation on the marketing and use of explosives precursors	yes
15.1		Explosives precursors which are subject to restrictions: change in the listing (table)	yes
15.1		Regulation on drug precursors: change in the listing (table)	yes
15.1	Restrictions according to GB REACH, Annex 17: none of the ingredients are listed	Restrictions according to GB REACH, Annex 17	yes
15.1		Dangerous substances with restrictions (GB REACH, Annex 17): change in the listing (table)	yes
15.1		International conventions	yes
16		Abbreviations and acronyms: change in the listing (table)	yes
16		List of relevant phrases (code and full text as stated in section 2 and 3): change in the listing (table)	yes

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Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
2019/1831/EU	Commission Directive establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CN Code	Combined Nomenclature
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Expl.	Explosive material
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
GHS-GB	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
HS	Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation)
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)

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Abbr.	Descriptions of used abbreviations
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
TWA	Time-weighted average
Unst. Expl.	Unstable explosive material
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

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Code	Text
H201	Explosive; mass explosion hazard.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Note concerning the lower explosion limit of water-thinnable varnishes:

See PTB research report PEx5 200500185, Physical-Technical Federal Agency Braunschweig, September 2005 and report PTB-W-57, February 1994.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.