Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

PUR-Strong

Version number: 18.0

Revision: 2021-10-27
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name **PUR-Strong Different gloss** **2528a:**

Product number 26301 ff

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 according to Regulation (EC) No 1272/2008 (CLP)

Hazard class	Category	Hazard class and category	Hazard statement
flammable liquid	2	Flam. Liq. 2	H225
serious eye damage/eye irritation	2	Eye Irrit. 2	H319
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

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word danger

- Pictograms

GHS02, GHS07

- Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
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 Hydroxyphenyl-benzotriazole derivative. May produce an allergic reaction.

- Hazardous ingredients for labelling n-butyl acetate, 1-methoxypropan-2-ol, acetone

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.

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.

Name of substance	Identifier	Wt%	Classification acc. to GHS
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

Name of substance	Identifier	Wt%	Classification acc. to GHS
	REACH Reg. No 01-2119485493-29-xxxx		
1-methoxypropan-2-ol	CAS No 107-98-2 EC No 203-539-1 Index No 603-064-00-3 REACH Reg. No 01-2119457435-35-xxxx	5 – < 10	Flam. Liq. 3 / H226 STOT SE 3 / H336
isobutyl acetate	CAS No 110-19-0 EC No 203-745-1 Index No 607-026-00-7 REACH Reg. No 01-2119488971-22-xxxx	5 – < 10	Flam. Liq. 2 / H225
acetone	CAS No 67-64-1 EC No 200-662-2 Index No 606-001-00-8 REACH Reg. No 01-2119471330-49-xxxx 01-2119498062-37-xxxx	5 – < 10	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336
Naphtha (petroleum), hydro-treated light	CAS No 64742-49-0 EC No 265-151-9 Index No 649-328-00-1 REACH Reg. No 01-2119484651-34-xxxx	3 – < 5	Flam. Liq. 2 / H225 Skin Irrit. 2 / H315 STOT SE 3 / H336 Asp. Tox. 1 / H304 Aquatic Chronic 2 / H411
Butan-1-ol	CAS No 71-36-3 EC No 200-751-6 Index No 603-004-00-6 REACH Reg. No 01-2119484630-38-xxxx	1 – < 3	Flam. Liq. 3 / H226 Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318 STOT SE 3 / H335 STOT SE 3 / H336

Name of substance	Identifier	Wt%	Classification acc. to GHS
ethyl acetate	CAS No 141-78-6 EC No 205-500-4 Index No 607-022-00-5 REACH Reg. No 01-2119475103-46-xxxx	1 – < 3	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	CAS No 1174921-73-3 EC No 927-241-2 REACH Reg. No 01-2119471843-32-xxxx	1 – < 3	Flam. Liq. 3 / H226 STOT SE 3 / H336 Asp. Tox. 1 / H304 Aquatic Chronic 3 / H412
Hydroxyphenyl-benzotriazole derivative	CAS No 104810-47-1 104810-48-2 EC No 400-830-7 Index No 607-176-00-3 REACH Reg. No 01-2119396032-43-xxxx	0.05 – < 0.3	Skin Sens. 1 / H317 Aquatic Chronic 2 / H411

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
Butan-1-ol	-	-	500 $^{mg}/_{kg}$	oral

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 (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

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 feedingstuffs.

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/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
EU	1-methoxy-2-propanol	107-98-2	IOELV	100	375	150	568				2000/39/EC
EU	isobutyl acetate	110-19-0	IOELV	50	241	150	723				2019/1831/EU
EU	n-butyl acetate	123-86-4	IOELV	50	241	150	723				2019/1831/EU
EU	ethyl acetate	141-78-6	IOELV	200	734	400	1,468				2017/164/EU
EU	acetone	67-64-1	IOELV	500	1,210						2000/39/EC
GB	1-methoxypropan-2-ol	107-98-2	WEL	100	375	150	560				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
GB	butyl acetate	123-86-4	WEL	150	724	200	966				EH40/2005
GB	ethyl acetate	141-78-6	WEL	200	734	400	1,468				EH40/2005
GB	acetone	67-64-1	WEL	500	1,210	1,500	3,620				EH40/2005
GB	butan-1-ol	71-36-3	WEL			50	154				EH40/2005

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
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)

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
1-methoxypropan-2-ol	107-98-2	DNEL	369 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
1-methoxypropan-2-ol	107-98-2	DNEL	553.5 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
1-methoxypropan-2-ol	107-98-2	DNEL	553.5 mg/m³	human, inhalatory	worker (industry)	acute - local effects
1-methoxypropan-2-ol	107-98-2	DNEL	183 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
isobutyl acetate	110-19-0	DNEL	300 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
isobutyl acetate	110-19-0	DNEL	600 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
isobutyl acetate	110-19-0	DNEL	300 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
isobutyl acetate	110-19-0	DNEL	600 mg/m³	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
acetone	67-64-1	DNEL	1,210 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
acetone	67-64-1	DNEL	2,420 mg/m³	human, inhalatory	worker (industry)	acute - local effects
acetone	67-64-1	DNEL	186 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Naphtha (petroleum), hydrotreated light	64742-49-0	DNEL	5,306 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Naphtha (petroleum), hydrotreated light	64742-49-0	DNEL	13,964 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Butan-1-ol	71-36-3	DNEL	310 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
ethyl acetate	141-78-6	DNEL	734 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
ethyl acetate	141-78-6	DNEL	1,468 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
ethyl acetate	141-78-6	DNEL	734 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
ethyl acetate	141-78-6	DNEL	1,468 mg/m³	human, inhalatory	worker (industry)	acute - local effects

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
ethyl acetate	141-78-6	DNEL	63 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	1174921-73-3	DNEL	871 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	1174921-73-3	DNEL	77 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	DNEL	0.398 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	DNEL	0.25 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
1-methoxypropan-2-ol	107-98-2	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
1-methoxypropan-2-ol	107-98-2	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
1-methoxypropan-2-ol	107-98-2	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
1-methoxypropan-2-ol	107-98-2	PNEC	52.3 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
1-methoxypropan-2-ol	107-98-2	PNEC	5.2 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
1-methoxypropan-2-ol	107-98-2	PNEC	4.59 mg/kg	terrestrial organisms	soil	short-term (single instance)
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)

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	0.075 mg/kg	terrestrial organisms	soil	short-term (single instance)
acetone	67-64-1	PNEC	10.6 mg/l	aquatic organisms	freshwater	short-term (single instance)
acetone	67-64-1	PNEC	1.06 mg/l	aquatic organisms	marine water	short-term (single instance)
acetone	67-64-1	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
acetone	67-64-1	PNEC	30.4 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
acetone	67-64-1	PNEC	3.04 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
acetone	67-64-1	PNEC	29.5 mg/kg	terrestrial organisms	soil	short-term (single instance)
Butan-1-ol	71-36-3	PNEC	0.082 mg/l	aquatic organisms	freshwater	short-term (single instance)
Butan-1-ol	71-36-3	PNEC	0.008 mg/l	aquatic organisms	marine water	short-term (single instance)
Butan-1-ol	71-36-3	PNEC	2,476 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Butan-1-ol	71-36-3	PNEC	0.324 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Butan-1-ol	71-36-3	PNEC	0.032 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Butan-1-ol	71-36-3	PNEC	0.017 mg/kg	terrestrial organisms	soil	short-term (single instance)
ethyl acetate	141-78-6	PNEC	0.24 mg/l	aquatic organisms	freshwater	short-term (single instance)
ethyl acetate	141-78-6	PNEC	0.024 mg/l	aquatic organisms	marine water	short-term (single instance)
ethyl acetate	141-78-6	PNEC	650 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
ethyl acetate	141-78-6	PNEC	1.15 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
ethyl acetate	141-78-6	PNEC	0.115 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
ethyl acetate	141-78-6	PNEC	0.148 mg/kg	terrestrial organisms	soil	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	0.023 mg/l	aquatic organisms	freshwater	short-term (single instance)

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	0 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	100 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	7.26 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	0.726 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	PNEC	14.52 $^{mg}/_{kg}$	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 butyl rubber as spray protection for short-term work. Material strength: 0.5mm, penetration time ≥ 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	specific type
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	56.05 °C
Flammability	flammable liquid in accordance with GHS criteria

Lower and upper explosion limit

Lower explosion limit (LEL)	1 vol%
Upper explosion limit (UEL)	13.74 vol%

Flash point	4 °C
Auto-ignition temperature	not applicable
pH (value)	not determined
Kinematic viscosity	28 – 32 $^{s}/_{\text{DIN 4mm}}$ at 20 °C
Solubility(ies)	not determined

Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available

Vapour pressure	25 kPa at 20 °C

Density and/or relative density

Density	0.923 – 0.938 $^{g}/_{cm^3}$ at 20 °C
Relative vapour density	information on this property is not available

Particle characteristics	not relevant (liquid)

Other safety parameters

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

9.2 Other information

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

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 according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Butan-1-ol	71-36-3	oral	500 $^{mg}/_{kg}$

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Contains 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.

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
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
1-methoxypropan-2-ol	107-98-2	ErC50	>1,000 mg/l	algae	7 d
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
acetone	67-64-1	EC50	61.15 g/l	microorganisms	30 min
Naphtha (petroleum), hydrotreated light	64742-49-0	EL50	10 mg/l	fish	21 d
Naphtha (petroleum), hydrotreated light	64742-49-0	EC50	15.41 mg/l	microorganisms	40 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	**CAS No**	**Endpoint**	**Value**	**Species**	**Exposure time**
Butan-1-ol	71-36-3	EC50	18 $^{mg}/_{l}$	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

12.2 Persistence and degradability

Degradability of components of the mixture						
Name of substance	**CAS No**	**Process**	**Degradation rate**	**Time**	**Method**	**Source**
n-butyl acetate	123-86-4	oxygen depletion	80 %	5 d		ECHA
1-methoxypropan-2-ol	107-98-2	DOC removal	96 %	28 d		ECHA
isobutyl acetate	110-19-0	oxygen depletion	60 %	5 d		ECHA
acetone	67-64-1	carbon dioxide generation	90.9 %	28 d		ECHA
Naphtha (petroleum), hydrotreated light	64742-49-0	oxygen depletion	83 %	10 d		ECHA
Butan-1-ol	71-36-3	oxygen depletion	68 %	5 d		ECHA
ethyl acetate	141-78-6	oxygen depletion	62 %	5 d		ECHA
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	1174921-73-3	oxygen depletion	8 %	3 d		ECHA
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	1174921-73-3	carbon dioxide generation	0 %	3 d		ECHA
Hydroxyphenyl-benzotriazole derivative	104810-47-1 104810-48-2	oxygen depletion	12 %	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.

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, Decision 2000/532/EC on the list of waste

- 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.
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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.

SECTION 14: Transport information

14.1 UN number or ID number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packing group

ADR/RID/ADN	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

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - 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
Emergency Action Code	3YE

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)

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

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

VOC content	71.39 % 670 $^{g}/_{l}$

Industrial Emissions Directive (IED)

VOC content	70.74 % 657.9 g/l

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

Water Framework Directive (WFD)

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	

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances

Name of substance	CAS No	Listed in	HS code
acetone	67-64-1	Table II	2914.11

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
2.2		- Precautionary statements: change in the listing (table)	yes
2.2	- Hazardous ingredients for labelling: n-butyl acetate, 1-methoxypropan-2-ol, acetone, Naphtha (petroleum), hydrotreated light	- Hazardous ingredients for labelling: n-butyl acetate, 1-methoxypropan-2-ol, acetone	yes
3.2		Description of the mixture: change in the listing (table)	yes
3.2		Description of the mixture: change in the listing (table)	yes
9.1	Density: 0.93 $^{g}/_{cm^3}$ at 20 °C	Density: 0.923 – 0.938 $^{g}/_{cm^3}$ at 20 °C	yes
15.1	VOC content: 71.92 % 670 $^{g}/_{l}$	VOC content: 71.39 % 670 $^{g}/_{l}$	yes
15.1	VOC content: 71.29 % 663 $^{g}/_{l}$	VOC content: 70.74 % 657.9 $^{g}/_{l}$	yes
16		Abbreviations and acronyms: change in the listing (table)	yes
16	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).	yes

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
2017/164/EU	Commission Directive establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU
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
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
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
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
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)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air

Abbr.	Descriptions of used abbreviations
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
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
SVHC	Substance of Very High Concern
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). 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)

Code	Text
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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.
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Disclaimer

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