

Metallgrund

Version number: 22.0

Revision: 2023-12-06
Date of issue: 2023-12-06:

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

1.1 Product identifier

Trade name **Metallgrund** **4512a:**
Different colours

Product number 4512081826 ff

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

Relevant identified uses Coating material for commercial or consumer 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

e-mail: sdb-info@adler-lacke.com

Further information obtainable from: sdb-info@adler-lacke.com

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 GB CLP)

Hazard class	Category	Hazard class and category	Hazard statement
flammable liquid	3	Flam. Liq. 3	H226
germ cell mutagenicity	1B	Muta. 1B	H340
carcinogenicity	1A	Carc. 1A	H350

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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Labelling (acc. to GB CLP)

- Signal word danger

- Pictograms

GHS02, GHS08



- Hazard statements

H226 Flammable liquid and vapour.
H340 May cause genetic defects.
H350 May cause cancer.

- Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/eye protection/face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.
EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

- Hazardous ingredients for labelling

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

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 (ED) 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

Alkyd resin with pigments and other additives in organic solvent.

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Name of substance	Identifier	Wt%	Classification acc. to GHS
Titanium dioxide	CAS No 13463-67-7 EC No 236-675-5 Index No 022-006-00-2	10 – < 25	Carc. 2 / H351
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	CAS No 64742-49-0 EC No 927-241-2 Index No 649-328-00-1	1 – < 5	Flam. Liq. 3 / H226 Acute Tox. 3 / H331 Muta. 1B / H340 Carc. 1A / H350 STOT SE 3 / H336 Asp. Tox. 1 / H304 Aquatic Chronic 2 / H411

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	-	-	≥6.1 mg/l/4h	inhalation: vapour

For full text of abbreviations: see SECTION 16. This mixture contains ≥ 1% titanium dioxide (CAS 13463-67-7). The Annex VI classification of Titanium dioxide does not apply to this mixture according to its Note 10.

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

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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), Phosphorus oxides (P_xO_y)

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. If substance has entered a water course or sewer, inform the responsible authority.

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.

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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.

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

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Occupational exposure limit values (Workplace Exposure Limits)											
Cou ntry	Name of agent	CAS No	Iden tifi- er	TWA [ppm]	TWA [mg/ m³]	STEL [ppm]	STEL [mg/ m³]	Ceil- ing-C [ppm]	Ceil- ing-C [mg/ m³]	Not atio n	Sour ce
EU	2-methoxy-1-methylethyl acetate	108-65-6	IOEL V	50	275	100	550			H	2000/ 39/EC
EU	n-butyl acetate	123-86-4	IOEL V	50	241	150	723				2019/ 1831/ EU
EU	crystalline silica	14808-60-7	IOEL V		0.1					dust, r	2017/ 2398/ EU
GB	1-methoxy-2-propyl acetate	108-65-6	WEL	50	274	100	548				EH40/ 2005
GB	mica	12001-26-2	WEL		10					i	EH40/ 2005
GB	mica	12001-26-2	WEL		0.8					r	EH40/ 2005
GB	butyl acetate	123-86-4	WEL	150	724	200	966				EH40/ 2005
GB	titanium diox- ide	13463-67-7	WEL		10					i	EH40/ 2005
GB	titanium diox- ide	13463-67-7	WEL		4					r	EH40/ 2005
GB	talc	14807-96-6	WEL		1					r, no_a sb	EH40/ 2005
GB	silica, crystal- line	14808-60-7	WEL		0.1					r	EH40/ 2005
GB	barium sulfate	7727-43-7	WEL		10					i	EH40/ 2005
GB	barium sulfate	7727-43-7	WEL		4					r	EH40/ 2005

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
dust	as dust
H	absorbed through the skin
i	inhalable fraction
no_asb	containing no asbestos fibres
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)

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Relevant DNELs of components						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-49-0	DNEL	871 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-49-0	DNEL	77 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

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	different colours
Odour	characteristic
Melting point/freezing point	not determined

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Boiling point or initial boiling point and boiling range	126.2 °C at 1,013 hPa
Flammability	flammable liquid in accordance with GHS criteria

Lower and upper explosion limit

Lower explosion limit (LEL)	1.2 vol%
Upper explosion limit (UEL)	10.4 vol%

Flash point	27 °C
Auto-ignition temperature	>200 °C
pH (value)	not determined
Kinematic viscosity	60 – 80 ⁵ / _{DIN 4mm}

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	13.5 hPa at 1,732 °C
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Density and/or relative density

Density	1.509 g/cm ³ at 20 °C
Relative vapour density	information on this property is not available

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

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.

Acute toxicity estimate (ATE) of components			
Name of substance	CAS No	Exposure route	ATE
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-49-0	inhalation: vapour	$\geq 6.1 \text{ mg/l/4h}$

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

Shall not be classified as a respiratory or skin sensitiser.

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Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

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

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.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

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.

12.6 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/packages

It is a dangerous waste; only packages 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.

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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.

SECTION 14: Transport information

14.1 UN 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

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ADR/RID III

IMDG-Code III

ICAO-TI III

14.5 Environmental hazards

hazardous to the aquatic environment

Environmentally hazardous substance (aquatic environment) trizinc bis(orthophosphate)

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, fish and tree



Environmental hazards yes (hazardous to the aquatic environment)

Special provisions (SP) 163, 367, 650

Excepted quantities (EQ) E1

Limited quantities (LQ) 5 L

Transport category (TC) 3

Tunnel restriction code (TRC) D/E

Hazard identification No 30

Emergency Action Code 3Y

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

Classification code F1

Danger label(s) 3, fish and tree



Environmental hazards yes (hazardous to water)

Special provisions (SP) 163, 367, 650

Excepted quantities (EQ) E1

Limited quantities (LQ) 5 L

Transport category (TC) 3

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Hazard identification No

30

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant

yes (hazardous to the aquatic environment)

Danger label(s)

3, fish and tree



Special provisions (SP)

163, 223, 367, 955

Excepted quantities (EQ)

E1

Limited quantities (LQ)

5 L

EmS

F-E, S-E

Stowage category

A

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

Environmental hazards

yes (hazardous to the aquatic environment)

Danger label(s)

3



Special provisions (SP)

A3, A72, A192

Excepted quantities (EQ)

E1

Limited quantities (LQ)

10 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)

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
E2	environmental hazards (hazardous to the aquatic environment, cat. 2)	200	500	57)
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
57) hazardous to the Aquatic Environment in category Chronic 2

Deco-Paint Directive (2004/42/EC)

VOC content	30.32 % 460 g/l
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Industrial Emissions Directive (IED) (2010/75/EU)

VOC content	30.32 % 457.6 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

Water Framework Directive (WFD)

List of pollutants (WFD)			
Name of substance	CAS No	Listed in	Remarks
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics		a)	
Titanium dioxide		a)	
Titanium dioxide		a)	

Legend

a) Indicative list of the main pollutants

Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation on drug precursors

none of the ingredients are listed

Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

National regulations (GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

none of the ingredients are listed

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
Metallgrund	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		3
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	carcinogenic		28
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	germ cell mutagenic (mutagenic)		29
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	flammable / pyrophoric		40

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15.2 Chemical Safety Assessment

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

SECTION 16: Other information

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
2017/2398/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
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
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
ATE	Acute Toxicity Estimate
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
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)
ED	Endocrine disruptor
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Flam. Liq.	Flammable liquid
GB CLP	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
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)

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Abbr.	Descriptions of used abbreviations
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
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
Muta.	Germ cell mutagenicity
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
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

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended). The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended). GB mandatory classification and labelling.

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)

Metallgrund

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Code	Text
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H411	Toxic 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.

Disclaimer

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