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

1.1 Product identifier

Trade name

einzA Heizkörper Spraylack, hochglänzend

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

Relevant identified uses of the substance or mixture
coating material

Uses advised against
No data available.

1.3 Details of the supplier of the safety data sheet

Address
einzA Farben GmbH & Co KG
Junkersstraße 13
30179 Hannover

Telephone no.	+49 (0)511 67490-0
Fax no.	+49 (0)511 67490-20
e-mail	info@einzA.com

Advice on Safety Data Sheet
sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)
Aerosol 1; H222 - H229
Aquatic Chronic 3; H412
Asp. Tox. 1; H304
STOT SE 3; H336

Classification information
This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

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

Hazard pictograms


GHS02


GHS07

Signal word
Danger

Hazardous component(s) to be indicated on label:
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Hazard statement(s)

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Hazard statements (EU)

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains phthalic-anhydride. May produce an allergic reaction.

Precautionary statement(s)

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P271	Use only outdoors or in a well-ventilated area.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F.
P501	Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards

The product does not contain any components > 0.1% that meet the criteria for PBT and vPvB according to Regulation (EC) No. 1907/2006, Annex XIII, or that have been included in the list compiled in accordance with Article 59(1). This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	**dimethyl ether**			
	115-10-6 204-065-8 603-019-00-8 01-2119472128-37	Flam. Gas 1A; H220 Press. Gas; H280	>= 25.00 - < 50.00	wt%
2	**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics**			
	64742-48-9 919-857-5 649-327-00-6 01-2119463258-33	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H336 EUH066	>= 25.00 - < 50.00	wt%
3	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**			
	64742-49-0 921-024-6 649-328-00-1 01-2119475514-35	Aquatic Chronic 2; H411 Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336 Asp. Tox. 1; H304	>= 5.00 - < 10.00	wt%
4	**cyclohexane**			
	110-82-7 203-806-2 601-017-00-1 01-2119463273-41	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Asp. Tox. 1; H304 Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336	< 2.50	wt%
5	**n-hexane**			
	110-54-3 203-777-6 601-037-00-0 01-2119480412-44	Aquatic Chronic 2; H411 Asp. Tox. 1; H304 Flam. Liq. 2; H225 Repr. 2; H361f Skin Irrit. 2; H315 STOT RE 2; H373 STOT SE 3; H336	< 2.50	wt%
6	**phthalic-anhydride**			
	85-44-9 201-607-5 607-009-00-4 01-2119457017-41	Acute Tox. 4; H302 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT SE 3; H335	< 0.50	wt%
7	**titanium dioxide**			
	13463-67-7 236-675-5 - 01-2119489379-17	-	>= 10.00 - < 25.00	wt%

Full text of H- and EUH-phrases, if not already mentioned in section 2.2: see section 16.

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)

1	U	-	-	-
2	P	-	-	-
3	P	-	-	-
5	-	STOT RE 2; H373: C >= 5%	-	-

Full text for the notes: pls. see section 16 “Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)”.

Acute toxicity estimate (ATE) values			
No	**oral**	**dermal**	**inhalative**
6	1530 mg/kg bodyweight		

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious place in recovery position and seek medical advice.

After inhalation
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

After skin contact
Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

After eye contact
Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

After ingestion
If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed
No data available.

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Alcohol resistant foam, CO2, powders, water spray

Unsuitable extinguishing media
water jet.

5.2 Special hazards arising from the substance or mixture
In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO2); Toxic pyrolysis products; Exposure to decomposition products may cause a health hazard.

5.3 Advice for firefighters
Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses. Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Exclude sources of ignition and ventilate the area. Do not inhale vapours/aerosols. Refer to protective measures listed in sections 7 and 8.

For emergency responders
No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions
If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent - avoid use of solvents.

6.4 Reference to other sections
No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling
The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Do not breathe steams or mist of the product. For personal protection see section 8. Avoid eye, skin and clothing contact.

General protective and hygiene measures
Avoid skin and eye contact. Do not eat or drink during work - no smoking. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

Advice on protection against fire and explosion
Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Electrical equipment should be protected to the appropriate standard.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Comply with legal health and safety regulations; Prevent unauthorised access. Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight. Keep away from sources of ignition. No smoking.

Requirements for storage rooms and vessels
Keep the product in the original packing. Keep container tightly closed. Observe label precautions. Official regulations ruling storage of aerosols must be observed.

Incompatible products
Store away from oxidising agents, from strongly alkaline and strongly acid materials.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.	
1	**dimethyl ether**	**115-10-6**		**204-065-8**	
	2000/39/EC				
	Dimethylether				
	WEL long-term (8-hr TWA reference period)	1920	mg/m³	1000	ppm
	List of approved workplace exposure limits (WELs) / EH40				
	Dimethyl ether				
	WEL short-term (15 min reference period)	958	mg/m³	500	ppm
	WEL long-term (8-hr TWA reference period)	766	mg/m³	400	ppm
2	**titanium dioxide**	**13463-67-7**		**236-675-5**	
	List of approved workplace exposure limits (WELs) / EH40				
	Titanium dioxide				
	total inhalable dust				
	WEL long-term (8-hr TWA reference period)	10	mg/m³		
	List of approved workplace exposure limits (WELs) / EH40				
	Titanium dioxide				
	respirable dust				
	WEL long-term (8-hr TWA reference period)	4	mg/m³		
3	**cyclohexane**	**110-82-7**		**203-806-2**	
	2006/15/EC				
	Cyclohexane				
	WEL long-term (8-hr TWA reference period)	700	mg/m³	200	ppm
	List of approved workplace exposure limits (WELs) / EH40				
	Cyclohexane				
	WEL short-term (15 min reference period)	1050	mg/m³	300	ppm
	WEL long-term (8-hr TWA reference period)	350	mg/m³	100	ppm
4	**n-hexane**	**110-54-3**		**203-777-6**	
	2006/15/EC				
	n-Hexane				
	WEL long-term (8-hr TWA reference period)	72	mg/m³	20	ppm
	List of approved workplace exposure limits (WELs) / EH40				
	n-Hexane				
	WEL long-term (8-hr TWA reference period)	72	mg/m³	20	ppm
5	**phthalic-anhydride**	**85-44-9**		**201-607-5**	
	List of approved workplace exposure limits (WELs) / EH40				

	Phthalic anhydride		
	WEL short-term (15 min reference period)	12	mg/m³
	WEL long-term (8-hr TWA reference period)	4	mg/m³
	Comments	Sen	

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no	
	Route of exposure	**Exposure time**	**Effect**	**Value**	
1	**dimethyl ether**			**115-10-6 204-065-8**	
	inhalative	Long term (chronic)	systemic	1894	mg/m³
2	**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics**			**64742-48-9 919-857-5**	
	dermal	Long term (chronic)	systemic	77	mg/kg/day
	inhalative	Long term (chronic)	systemic	871	mg/m³
3	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**			**64742-49-0 921-024-6**	
	dermal	Long term (chronic)	systemic	773	mg/kg/day
	inhalative	Long term (chronic)	systemic	2035	mg/m³
4	**cyclohexane**			**110-82-7 203-806-2**	
	dermal	Long term (chronic)	systemic	2016	mg/kg bw/day
	inhalative	Long term (chronic)	systemic	700	mg/m³
	inhalative	Short term (acut)	systemic	1400	mg/m³
	inhalative	Long term (chronic)	local	700	mg/m³
	inhalative	Short term (acut)	local	1400	mg/m³
5	**n-hexane**			**110-54-3 203-777-6**	
	dermal	Long term (chronic)	systemic	11	mg/kg
	inhalative	Long term (chronic)	systemic	75	mg/m³
6	**phthalic-anhydride**			**85-44-9 201-607-5**	
	dermal	Long term (chronic)	systemic	14	mg/kg bw/day
	inhalative	Long term (chronic)	systemic	49.4	mg/m³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	**Exposure time**	**Effect**	**Value**	
1	**dimethyl ether**			**115-10-6 204-065-8**	
	inhalative	Long term (chronic)	systemic	471	mg/m³
2	**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics**			**64742-48-9 919-857-5**	
	oral	Long term (chronic)	systemic	46	mg/kg/day
	dermal	Long term (chronic)	systemic	46	mg/kg/day
	inhalative	Long term (chronic)	systemic	185	mg/m³
3	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**			**64742-49-0 921-024-6**	
	oral	Long term (chronic)	systemic	699	mg/kg/day
	dermal	Long term (chronic)	systemic	699	mg/kg/day
	inhalative	Long term (chronic)	systemic	608	mg/m³
4	**cyclohexane**			**110-82-7 203-806-2**	
	oral	Long term (chronic)	systemic	59.4	mg/kg bw/day
	dermal	Long term (chronic)	systemic	1186	mg/kg
	inhalative	Long term (chronic)	systemic	206	mg/m³
	inhalative	Short term (acut)	systemic	412	mg/m³
	inhalative	Long term (chronic)	local	206	mg/m³
	inhalative	Short term (acut)	local	412	mg/m³
5	**n-hexane**			**110-54-3 203-777-6**	
	oral	Long term (chronic)	systemic	4	mg/kg
	dermal	Long term (chronic)	systemic	5.3	mg/kg
	inhalative	Long term (chronic)	systemic	16	mg/m³
6	**phthalic-anhydride**			**85-44-9 201-607-5**	
	oral	Long term (chronic)	systemic	5	mg/kg bw/day

	oral	Short term (acut)	systemic	25	mg/kg bw/day
	dermal	Long term (chronic)	systemic	5	mg/kg bw/day
	inhalative	Long term (chronic)	systemic	8.7	mg/m³

PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	**dimethyl ether**		**115-10-6 204-065-8**	
	water	fresh water	0.155	mg/L
	water	Aqua intermittent	1.549	mg/L
	water	marine water	0.016	mg/L
	water	fresh water sediment	0.681	mg/kg dry weight
	water	marine water sediment	0.069	mg/kg dry weight
	soil	-	0.045	mg/kg dry weight
	sewage treatment plant	-	160	mg/L
2	**cyclohexane**		**110-82-7 203-806-2**	
	water	fresh water	44.7	µg/L
	water	marine water	4.47	µg/L
	water	fresh water sediment	3.6	mg/kg dry weight
	water	marine water sediment	0.36	mg/kg dry weight
	soil	-	0.694	mg/kg dry weight
	sewage treatment plant	-	3.24	mg/L
3	**phthalic-anhydride**		**85-44-9 201-607-5**	
	water	fresh water	1	mg/L
	water	marine water	0.1	mg/L
	water	Aqua intermittent	5.6	mg/L
	water	fresh water sediment	3.8	mg/kg dry weight
	water	marine water sediment	0.38	mg/kg dry weight
	soil	-	0.173	mg/kg dry weight
	sewage treatment plant	-	10	mg/L

8.2 Exposure controls

Appropriate engineering controls
Provide good ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection
If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators. Short term: filter apparatus, Filter A

Eye / face protection
Safety glasses with side protection shield (EN 166)

Hand protection
Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material	nitrile rubber		
Material thickness	>	0.4	mm
Breakthrough time	>	480	min

Other
Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre.

Environmental exposure controls
No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation
gas

Form
Aerosol

Colour
white

Odour
characteristic

pH value	
reason for missing pH	substance/mixture is non-soluble (in water)

Boiling point / boiling range		
Value	-25	°C
Reference substance	dimethylether	

Melting point/freezing point		
Value	-142	°C
Reference substance	dimethylether	

Decomposition temperature
No data available

Flash point		
Value	< 42	°C
Comments	without propellant	

Ignition temperature		
Value	201	°C
Reference substance	Hydrocarbons C6-C7, n-alkanes, isoalkanes, cyclenes, <5% n-hexane	

Flammability
Extremely flammable aerosol

Lower explosion limit		
Value	0.6	% vol
Reference substance	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Source	Literature value	

Upper explosion limit		
Value	24.4	% vol
Reference substance	dimethylether	
Source	Literature value	

Vapour pressure		
Value	60	mbar
Reference temperature	20	°C
Reference substance	Hydrocarbons C6-C7, n-alkanes, isoalkanes, cyclenes, <5% n-hexane	

Relative vapour density
No data available

Relative density
No data available

Density
No data available

Solubility in water	
Comments	insoluble

Solubility
No data available

Partition coefficient n-octanol/water (log value)				
No	**Substance name**	**CAS no.**		**EC no.**
1	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**	**64742-49-0**		**921-024-6**
log Pow	2.96	-	3.78	
Reference temperature			20	°C
with reference to	pH 7			
Method	QSAR			
Source	ECHA			
2	**cyclohexane**	**110-82-7**		**203-806-2**
log Pow			3.44	
Reference temperature			25	°C
with reference to	pH 7			
Source	ECHA			
3	**n-hexane**	**110-54-3**		**203-777-6**
log Pow			4	
Reference temperature			20	°C

Source	ECHA

4	phthalic-anhydride	85-44-9	201-607-5
log Pow		1.6	
Source		ECHA	

Kinematic viscosity
No data available

Particle characteristics
No data available

9.2 Other information

Other information
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
Stable under recommended storage and handling conditions (See section 7).

10.2 Chemical stability
Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions
Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.4 Conditions to avoid
Heat, naked flames and other ignition sources.

10.5 Incompatible materials
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6 Hazardous decomposition products
None if stored, handled and transported properly. In case of fire: see section 5.

SECTION 11: Toxicological information

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

Acute oral toxicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics**	**64742-48-9**	**919-857-5**
LD50	> 5000		mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		
2	**cyclohexane**	**110-82-7**	**203-806-2**
LD50	> 5000		mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**phthalic-anhydride**	**85-44-9**	**201-607-5**
LD50	1530		mg/kg bodyweight
Species	rat		
Source	ECHA		

Acute dermal toxicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics**	**64742-48-9**	**919-857-5**
LD50	> 2000		mg/kg bodyweight
Species	rabbit		
Method	OECD 402		
Source	ECHA		
2	**cyclohexane**	**110-82-7**	**203-806-2**
LD50	> 2000		mg/kg bodyweight
Species	rabbit		
Method	OECD 402		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Acute inhalational toxicity

No	Substance name	CAS no.	EC no.
1	dimethyl ether	115-10-6	204-065-8

LC50		164000	ppmV
Duration of exposure		4	h
State of aggregation	Gas		
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

2	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	64742-49-0	921-024-6

LC50	>	25.2	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

3	cyclohexane	110-82-7	203-806-2

LC50	>	19.07	mg/l
Duration of exposure		4	h
State of aggregation	Dust/mist		
Species	rat		
Method	OECD 403		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

4	phthalic-anhydride	85-44-9	201-607-5

LC50	>	2.14	mg/l
Duration of exposure		4	h
State of aggregation	mist		
Species	rat		
Method	OECD 403		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met (maximum achievable concentration, no mortality).		

Skin corrosion/irritation

No	Substance name	CAS no.	EC no.
1	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-48-9	919-857-5

Species	rabbit
Method	OECD 404
Source	ECHA
Evaluation	non-irritant

2	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	64742-49-0	921-024-6

Duration of exposure		4	h
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	irritant		
Evaluation/classification	Based on available data, the classification criteria are met.		

3	n-hexane	110-54-3	203-777-6

Evaluation	irritant
Evaluation/classification	The classification is according to the current version of the harmonized classification found in Annex VI of Regulation EC 1272/2008.

4	phthalic-anhydride	85-44-9	201-607-5

Species	rabbit
Method	OECD 404
Source	ECHA
Evaluation	irritant

Serious eye damage/irritation

No	Substance name	CAS no.	EC no.
1	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-48-9	919-857-5

Species	rabbit
Method	OECD 405
Source	ECHA
Evaluation	non-irritant

2	phthalic-anhydride	85-44-9	201-607-5

Species	rabbit
Source	ECHA

Evaluation	Irreversible effects on the eye

Respiratory or skin sensitisation			
No	**Substance name**	**CAS no.**	**EC no.**
1	**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics**	**64742-48-9**	**919-857-5**
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	non-sensitizing		
2	**cyclohexane**	**110-82-7**	**203-806-2**
Route of exposure	Skin		
Species	guinea pig		
Method	Buehler		
Source	ECHA		
Evaluation	non-sensitizing		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**n-hexane**	**110-54-3**	**203-777-6**
Route of exposure	Skin		
Species	mouse		
Method	OECD 429		
Source	ECHA		
Evaluation	non-sensitizing		
Evaluation/classification	Based on available data, the classification criteria are not met.		
4	**phthalic-anhydride**	**85-44-9**	**201-607-5**
Route of exposure	respiratory tract		
Species	guinea pig		
Source	ECHA		
Evaluation	sensitizing		
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	sensitizing		

Germ cell mutagenicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**dimethyl ether**	**115-10-6**	**204-065-8**
Type of examination	in vitro gene mutation study in bacteria		
Species	Salmonella typhimurium / Escherichia coli		
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Type of examination	In vitro Mammalian Chromosomal Aberration Test		
Species	Human Lymphocyte		
Method	OECD 473		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Type of examination	in vitro gene mutation study in mammalian cells		
Species	Chinese hamster Ovary (CHO)		
Method	OECD 476		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**cyclohexane**	**110-82-7**	**203-806-2**
Type of examination	in vitro gene mutation study in bacteria		
Species	S. typhimurium TA 1535, TA 1537, TA 98 and TA 100		
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**n-hexane**	**110-54-3**	**203-777-6**
Type of examination	in vitro gene mutation study in bacteria		
Species	Salmonella typhimurium TA98, TA100, TA1535, TA1537		
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
4	**phthalic-anhydride**	**85-44-9**	**201-607-5**
Type of examination	Bacterial Reverse Mutation Test		
Species	S. typhimurium TA 1535, TA 1537, TA 98, TA 100 and E. coli WP2		
Method	OECD 471		
Source	ECHA		

Evaluation/classification	Based on available data, the classification criteria are not met.

Reproduction toxicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**dimethyl ether**	**115-10-6**	**204-065-8**
Route of exposure	inhalational		
Type of examination	Repeated Dose Inhalation Toxicity		
Species	rat		
Method	OECD 452		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	inhalational		
NOAEL	40000	ppm	
Type of examination	Prenatal Developmental Toxicity Study		
Species	rat		
Method	OECD 414		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**n-hexane**	**110-54-3**	**203-777-6**
Evaluation/classification	The classification is according to the current version of the harmonized classification found in Annex VI of Regulation EC 1272/2008.		
3	**phthalic-anhydride**	**85-44-9**	**201-607-5**
Route of exposure	oral		
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Carcinogenicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**dimethyl ether**	**115-10-6**	**204-065-8**
Route of exposure	inhalational		
NOAEC	47106	mg/m³	
Type of examination	Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test		
Species	rat		
Method	OECD 453		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**phthalic-anhydride**	**85-44-9**	**201-607-5**
Route of exposure	oral		
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

STOT - single exposure			
No	**Substance name**	**CAS no.**	**EC no.**
1	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**	**64742-49-0**	**921-024-6**
Evaluation/classification	The classification is according to the current version of the harmonized classification found in Annex VI of Regulation EC 1272/2008.		
2	**n-hexane**	**110-54-3**	**203-777-6**
Evaluation/classification	The classification is according to the current version of the harmonized classification found in Annex VI of Regulation EC 1272/2008.		

STOT - repeated exposure			
No	**Substance name**	**CAS no.**	**EC no.**
1	**dimethyl ether**	**115-10-6**	**204-065-8**
Route of exposure	inhalational		
Species	rat		
Method	OECD 452		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**	**64742-49-0**	**921-024-6**
Route of exposure	inhalational		
NOAEC	14000	mg/m³	
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**n-hexane**	**110-54-3**	**203-777-6**

Evaluation/classification	The classification is according to the current version of the harmonized classification found in Annex VI of Regulation EC 1272/2008.		
4	**phthalic-anhydride**	**85-44-9**	**201-607-5**
Route of exposure	oral		
NOAEL		500	mg/kg bw/d
Duration of exposure		105	week/s
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Aspiration hazard
No data available

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Inhalation may cause irritations of the respiratory tract, allergic reactions, cough, breathing difficulties, headache, nausea and vomiting.

11.2 Information on other hazards

Endocrine disrupting properties
No data available

Other information
No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)					
No	**Substance name**	**CAS no.**		**EC no.**	
1	**dimethyl ether**	**115-10-6**		**204-065-8**	
LC50		>	4100		mg/l
Duration of exposure			96		h
Species	Poecilia reticulata				
Source	ECHA				
Evaluation/classification	Based on available data, the classification criteria are not met.				
2	**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics**	**64742-48-9**		**919-857-5**	
LL50		>	1000		mg/l
Duration of exposure			96		h
Species	Rainbow trout				
Method	OECD 203				
Source	ECHA				
3	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**	**64742-49-0**		**921-024-6**	
LC50			11.4		mg/l
Duration of exposure			96		h
Species	Oncorhynchus mykiss				
Method	OECD 203				
Source	ECHA				
Evaluation/classification	Based on available data, the classification criteria are not met.				
4	**cyclohexane**	**110-82-7**		**203-806-2**	
LC50			4.53		mg/l
Duration of exposure			96		h
Species	Pimephales promelas				
Method	OECD 203				
Source	ECHA				
5	**phthalic-anhydride**	**85-44-9**		**201-607-5**	
LC50			560		mg/l
Duration of exposure			168		h
Species	Danio rerio				
Method	OECD 210				
Source	ECHA				

Toxicity to fish (chronic)					
No	**Substance name**	**CAS no.**		**EC no.**	
1	**phthalic-anhydride**	**85-44-9**		**201-607-5**	
NOEC			10		mg/l
Duration of exposure			60		day(s)
Species	Oncorhynchus mykiss				
Method	OECD 210				
Source	ECHA				

Toxicity to Daphnia (acute)

No	Substance name	CAS no.	EC no.
1	dimethyl ether	115-10-6	204-065-8

EC50	>	4400	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

No	Substance name	CAS no.	EC no.
2	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-48-9	919-857-5

EL50	>	1000	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
with reference to	WAF (water accommodated fractions)		
Method	OECD 202		
Source	ECHA		

No	Substance name	CAS no.	EC no.
3	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	64742-49-0	921-024-6

EL50		3	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	OECD 202		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

No	Substance name	CAS no.	EC no.
4	cyclohexane	110-82-7	203-806-2

EC50		0.9	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	OECD 202		
Source	ECHA		

No	Substance name	CAS no.	EC no.
5	phthalic-anhydride	85-44-9	201-607-5

EC50	>	640	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Source	ECHA		

Toxicity to Daphnia (chronic)

No	Substance name	CAS no.	EC no.
1	phthalic-anhydride	85-44-9	201-607-5

NOEC		16	mg/l
Duration of exposure		21	day(s)
Species	Daphnia magna		
Method	OECD 211		
Source	ECHA		

Toxicity to algae (acute)

No	Substance name	CAS no.	EC no.
1	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-48-9	919-857-5

EL50	>	1000	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
with reference to	WAF (water accommodated fractions)		
Method	OECD 201		
Source	ECHA		

No	Substance name	CAS no.	EC no.
2	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	64742-49-0	921-024-6

EL50		30	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

No	Substance name	CAS no.	EC no.
3	cyclohexane	110-82-7	203-806-2

ErC50	>	4.425	mg/l
Duration of exposure		72	h
Species	Raphidocelis subcapitata		
Method	OECD 201		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

No	Substance name	CAS no.	EC no.
4	phthalic-anhydride	85-44-9	201-607-5

EC50	>=	100	mg/l

Duration of exposure	72		h
Species	Desmodesmus subspicatus		
Method	EU C.3		
Source	ECHA		

Toxicity to algae (chronic)			
No	**Substance name**	**CAS no.**	**EC no.**
1	**cyclohexane**	**110-82-7**	**203-806-2**
NOEC	0.9		mg/l
Duration of exposure	72		h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Bacteria toxicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**dimethyl ether**	**115-10-6**	**204-065-8**
EC10	> 1600		mg/l
Species	Pseudomonas putida		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

12.2 Persistence and degradability

Biodegradability			
No	**Substance name**	**CAS no.**	**EC no.**
1	**dimethyl ether**	**115-10-6**	**204-065-8**
Type	aerobic biodegradation		
Value	5		%
Duration	28		d
Method	OECD 301 D		
Source	ECHA		
Evaluation	not readily biodegradable		
2	**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics**	**64742-48-9**	**919-857-5**
Method	OECD 301 F		
Source	ECHA		
Evaluation	readily biodegradable		
3	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**	**64742-49-0**	**921-024-6**
Value	98		%
Duration	28		day(s)
Method	OECD 301 F		
Source	ECHA		
Evaluation	readily biodegradable		
4	**cyclohexane**	**110-82-7**	**203-806-2**
Type	aerobic biodegradation		
Value	77		%
Duration	28		d
Method	OECD 301 F		
Source	ECHA		
Evaluation	readily biodegradable		
5	**phthalic-anhydride**	**85-44-9**	**201-607-5**
Type	DOC decrease		
Value	74		%
Duration	30		day(s)
Method	OECD 301 D		
Source	ECHA		
Evaluation	readily biodegradable		

12.3 Bioaccumulative potential

Bioconcentration factor (BCF)			
No	**Substance name**	**CAS no.**	**EC no.**
1	**phthalic-anhydride**	**85-44-9**	**201-607-5**
BCF	3.4		
Method	Calculation model used (Q)SAR		
Source	ECHA		

Partition coefficient n-octanol/water (log value)			
No	**Substance name**	**CAS no.**	**EC no.**
1	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**	**64742-49-0**	**921-024-6**

log Pow		2.96	-	3.78	
Reference temperature				20	°C
with reference to		pH 7			
Method		QSAR			
Source		ECHA			
2	**cyclohexane**	**110-82-7**		**203-806-2**	
log Pow				3.44	
Reference temperature				25	°C
with reference to		pH 7			
Source		ECHA			
3	**n-hexane**	**110-54-3**		**203-777-6**	
log Pow				4	
Reference temperature				20	°C
Source		ECHA			
4	**phthalic-anhydride**	**85-44-9**		**201-607-5**	
log Pow				1.6	
Source		ECHA			

12.4 Mobility in soil

Mobility in soil					
No	**Substance name**	**CAS no.**		**EC no.**	
1	**phthalic-anhydride**	**85-44-9**		**201-607-5**	
log Koc		0.3	-	1.5	
Method		OECD 106			
Source		ECHA			

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment			
No	**Substance name**	**CAS no.**	**EC no.**
1	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**	**64742-49-0**	**921-024-6**
PBT assessment		The substance is not PBT.	
vPvB assessment		The substance is not vPvB.	
2	**n-hexane**	**110-54-3**	**203-777-6**
PBT assessment		The substance is not PBT.	
vPvB assessment		The substance is not vPvB.	
Source		ECHA	

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information
Do not allow to enter drains or water courses.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

The listed waste code numbers, according to the European Waste Catalogue, are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company.
Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.
Hand over only completely emptied aerosol cans for valuable substance recovery!

Packaging

Waste code 15 01 04; 15 01 11* metallic packaging; metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer. Empty containers must be scrapped or reconditioned.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN UN1950

IMDG	UN1950
ICAO-TI / IATA	UN1950

14.2 UN proper shipping name

ADR/RID/ADN	AEROSOLS
IMDG	AEROSOLS
ICAO-TI / IATA	Aerosols, flammable

14.3 Transport hazard class(es)

ADR/RID/ADN - Class	2
Label	2.1
Classification code	5F
Tunnel restriction code	D
IMDG - Class	2
Label	2.1
ICAO-TI / IATA - Class	2.1
Label	2.1

14.4 Packing group

ADR/RID/ADN	-
IMDG	-
ICAO-TI / IATA	-

14.5 Environmental hazards

EmS	F-D, S-U

14.6 Special precautions for user

Transport within the user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation			
The product contains following substance(s) meeting the criteria in Article 57 in association with Article 59 of the REACH regulation ((EC) 1907/2006) that are placed on the list of candidates considered for inclusion in annex XIV (substances subject to Authorisation).			
No	**Substance name**	**CAS no.**	**EC no.**
1	**n-hexane**	**110-54-3**	**203-777-6**

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES				
The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.			No 3	
The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.				
No	**Substance name**	**CAS no.**	**EC no.**	**No**
1	**cyclohexane**	**110-82-7**	**203-806-2**	**57, 75**
2	**Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane**	**64742-49-0**	**921-024-6**	**75**
3	**n-hexane**	**110-54-3**	**203-777-6**	**75**
4	**phthalic-anhydride**	**85-44-9**	**201-607-5**	**75**
5	**titanium dioxide**	**13463-67-7**	**236-675-5**	**75**

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances	
This product is subject to Part I of Annex I, risk category:	P3a

Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)		
VOC-value	70	%

National regulations

Other national regulations

Adhere to national regulations for proper handling and use of hazardous materials. Use appropriate personal protective equipment.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the data sheet:
Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.
Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H220	Extremely flammable gas.
H222 - H229	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
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.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Classification information
This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

P	The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.
U	When put on the market gases have to be classified as ‘Gases under pressure’, in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Creation of the safety data sheet
UMCO GmbH
Georg-Wilhelm-Str. 187, D-21107 Hamburg
Tel.: +49 40 / 555 546 300 Fax: +49 40 / 555 546 357 e-mail: umco@umco.de

This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:
Alterations to the previous edition are marked in the left-hand margin.

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