Safety Data Sheet

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

Nifestol 70 Spray

Version number: 3.2 Replaces version of: 2015-06-17 (2)

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

1.1 Product identifier - UFI Nr. 1600-604Y-E00V-518N

Trade nameNifestol 70 SprayRegistration number (REACH)Not relevant (mixture).CAS numbernot relevant (mixture)

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

Relevant identified uses

1.3 Details of the supplier of the safety data sheet

Bauhoflieferant24 GmbH Heinrich-Heine-Straße 14 36448 Bad Liebenstein Germany Telephone: +49 (0) 36961-59315 Telefax: +49 (0) 36961-3551 e-mail: info@nifestol.de Website: www.nifestol.de

1.4 Emergency telephone number

As above or nearest toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Classification							
Section	Hazard class	Category	Hazard class and category	Hazard state- ment			
2.3	aerosols	3	Aerosol 3	H229			
3.9	specific target organ toxicity - repeated expos- ure	1	STOT RE 1	H372			
4.1C	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

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

Revision: 2024-01-06 First version: 2011-09-30

Rust-solver

y/undertaking

2.2 Label elements

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

Signal word danger

Pictograms

GHS08



Hazard statements

H229	Pressurised container: May burst if heated.
H372	Causes damage to organs (central nervous system) through prolonged or re-
	peated exposure (if inhaled).
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe mist/vapours/spray.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container in accordance with local/regional/national/interna-
	tional regulations.

Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.

Additional labelling according to Directive 75/324/EEC relating to aerosol dispensers

Non-flammable.

0.87 % by mass of the contents are flammable.

Pressurized container: may burst if heated.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Hazardous ingredients for labelling	hydrocarbons, C10-C13, n-alkanes, isoalkanes,
	cyclics, aromatics (2-25%)

2.3 Other hazards

This material is combustible, but will not ignite readily.

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

Hazardous ingredients						
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes	
hydrocarbons, C10- C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	EC No 919-164-8 REACH Reg. No 01-2119473977- 17	48.6 - < 53. 46	STOT RE 1 / H372 Asp. Tox. 1 / H304 Aquatic Chronic 3 / H412	&	-	
Hydrocarbons, C15- C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	EC No 934-956-3 REACH Reg. No 01-2119827000- 58	24.3 - < 29. 16	Asp. Tox. 1 / H304	&	-	
hydrocarbons, C11- C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC No 926-141-6 REACH Reg. No 01-2119456620- 43	14.58 - < 19 .44	Asp. Tox. 1 / H304		-	
carbon dioxide	CAS No 124-38-9 EC No 204-696-9	< 5	Press. Gas C / H280	\diamond	IOELV	
2-butoxyethanol	CAS No 111-76-2 EC No 203-905-0 Index No 603-014-00-0 REACH Reg. No 01-2119475108- 36	< 0.972	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319	(1)	GHS-HC IOELV	

Notes

GHS- Harmonised classification (the classification of the substance corresponds to the entry in the list according toHC: 1272/2008/EC, Annex VI)

IOELV: Substance with a community indicative occupational exposure limit value

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
2-butoxyethanol	-	-	1,414 ^{mg} / _{kg} 1,100 ^{mg} / _{kg} 11 ^{mg} / _l /4h	oral dermal inhalation: vapour

for full text of H-phrases: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider. Remove victim out of the danger area. Take off immediately all contaminated clothing. 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.

Following inhalation

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

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If skin irritation occurs: Get medical advice/attention.

Following eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

Following ingestion

Rinse mouth. Do not induce vomiting.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

These information are not available.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, fire extinguishing powder

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10. Vapours may form explosive mixtures with air.

Hazardous combustion products

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.

Special protective equipment for firefighters

wear self-contained breathing apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Avoid contact with skin and eyes.

Do not breathe vapour/spray.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

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

6.2 Environmental precautions

Remove from the water surface (e.g. skimming, sucking). 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 clean up a spill

Collect spillage. Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

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

Avoid contact with skin and eyes. Do not breathe vapour/spray.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Keep away from sources of ignition - No smoking.

Specific notes/details

None.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas. Wash hands after use. Preventive skin protection (barrier creams/ointments) is recommended. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Explosive atmospheres

Prevent from heating up above 50 °C/122 °F. Protect from sunlight.

Flammability hazards

Keep away from sources of ignition - No smoking. Do not spray on an open flame or other ignition source. Protect from sunlight.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Do not pierce or burn, even after use.

Protect against external exposure, such as

heat

Consideration of other advice

Keep away from food, drink and animal feeding stuffs.

Ventilation requirements

Provision of sufficient ventilation.

Packaging compatibilities

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

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Γ

Occup	Occupational exposure limit values (Workplace Exposure Limits)								
Coun- try	Name of agent	CAS No	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Nota- tion	Source
EU	2-butoxyethanol	111-76-2	IOELV	20	98	50	246	-	2000/39/EC
EU	carbon dioxide	124-38-9	IOELV	5,000	9,000	-	-	-	2006/15/EC
GB	cycloalkanes (>C7)	-	WEL	-	800	-	-	-	EH40/2005
GB	normal and branched chain alkanes (>C7)	-	WEL	-	1,200	-	-	-	EH40/2005
GB	2-butoxyethanol	111-76-2	WEL	25	123	50	246	-	EH40/2005
GB	carbon dioxide	124-38-9	WEL	5,000	9,150	15,000	27,400	-	EH40/2005

Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15minute 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)

Biologic	cal limit values					
Coun- try	Name of agent	Parameter	Nota- tion	Identifier	Value	Source
GB	2-butoxyethanol	2-butoxyacetic acid	crea	BMGV	240 mmol/ mol	EH40/2005

Notation

crea creatinine

Relevant DNELs of components of the mixture						
Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
2-butoxyethanol	111-76-2	DNEL	98 mg/m³	human, inhalat- ory	worker (industry)	chronic - system- ic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Environmental com- partment	
2-butoxyethanol	111-76-2	PNEC	8.8 ^{mg} /l	freshwater	
2-butoxyethanol	111-76-2	PNEC	0.88 ^{mg} / _l	marine water	
2-butoxyethanol	111-76-2	PNEC	463 ^{mg} / _l	sewage treatment plant (STP)	
2-butoxyethanol	111-76-2	PNEC	34.6 ^{mg} / _{kg}	freshwater sediment	
2-butoxyethanol	111-76-2	PNEC	2.33 ^{mg} / _{kg}	soil	
2-butoxyethanol	111-76-2	PNEC	3.46 ^{mg} / _{kg}	marine sediment	
2-butoxyethanol: PNEC Oral Secondary Poisoning 0,02 g/kg Food					

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Hand protection

Protective gloves				
Material	Material thickness	Breakthrough times of the glove material		
NBR: acrylonitrile-butadiene rubber	no information available	no information available		
FKM: fluoro-elastomer	no information available	no information available		

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. During spraying wear suitable respiratory equipment.

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, gaseous (spray aerosol)
Colour	light yellow
Odour	characteristic
Melting point/freezing point	not determined not applicable
Boiling point or initial boiling point and boiling range	>176 °C
Flammability	non-flammable aerosol in accordance with GHS criteria
Lower and upper explosion limit	not determined
Flash point	>61 °C
Auto-ignition temperature	not applicable (aerosol)
Decomposition temperature	not relevant
pH (value)	not determined
Viscosity	not relevant (aerosol)
Solubility(ies)	
Water solubility	0 ^{mg} / _{cm³} not miscible in any proportion

Partition coefficient n-octanol/water (log value) not determined

	Vapour pressure	not determined
	Density and/or relative density	
	Density	0.825 ^g / _{cm³} at 20 °C
	Relative vapour density	information on this property is not available
	Particle characteristics	not relevant (aerosol)
9.2	Other information	
	Information with regard to physical hazard classes	there is no additional information
	Other safety characteristics	
	Propellant content	2.98 %
	Temperature class (EU, acc. to ATEX)	T3 (maximum permissible surface temperature on the equip- ment: 200°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Risk of ignition.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Contains gas under pressure; may explode if heated.

Protect from sunlight.

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

Classification procedure

If not otherwise specified the classification is based on: Ingredients of the mixture (additivity formula).

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

Acute toxicity

Test data are not available for the complete mixture.

Name of substance	EC No	Expos- ure route	End- point	Value	Species	Method	Source		
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	919-164-8	oral	LD0	>15,000 ^{mg} / _{kg}	rat	OECD Guideline 401	ECHA		
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	919-164-8	dermal	LD0	~3,400 ^{mg} / _{kg}	rat	-	ECHA		
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromat- ics	934-956-3	oral	LD50	>5,000 ^{mg} / _{kg}	rat	OECD Guideline 401	ECHA		
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromat- ics	934-956-3	inhala- tion: dust/ mist	LC50	>5,266 ^{mg} / _{m³} /4h	rat	OECD Guideline 403	ECHA		
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromat- ics	934-956-3	dermal	LD50	>3,160 ^{mg} / _{kg}	rabbit	OECD Guideline 402	ECHA		
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	oral	LD0	>5,000 ^{mg} / _{kg}	rat	OECD Guideline 401	ECHA		
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	dermal	LD0	>2,000 ^{mg} / _{kg}	rat	OECD Guideline 402	ECHA		
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	inhala- tion: dust/ mist	LC0	>5,600 ^{mg} / _{m³} /4h	rat	OECD Guideline 403	ECHA		
2-butoxyethanol	203-905-0	oral	LD50	1,414 ^{mg} / _{kg}	guinea pig	OECD Guideline 401	ECHA		
carbon dioxide: LDLo(rat): 6pph/24h/10d									

Name of substance	EC No	Expos- ure route	End- point	Value	Species	Method	Source	
carbon dioxide: LDLo(human): 9pph/5min								

Skin corrosion/irritation

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Serious eye damage/eye irritation

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory or skin sensitisation

Skin sensitisation

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory sensitisation

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Hazard category	Target organ	Exposure route		
1	central nervous system	if inhaled		
2	central nervous system	if inhaled		

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.

Endocrine disrupting properties

None of the ingredients are listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Test data are not available for the complete mixture.

Aquatic toxicity (acute) of components of the mixture

Name of sub- stance	EC No	Endpoint	Value	Species	Method	Source	Expos- ure time
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	LL50	10 – 30 ^{mg} / _l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA	96 h
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	EL50	2.3 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	72 h
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	EL50	10 – 22 ^{mg} / _l	daphnia magna	OECD Guideline 202	ECHA	48 h
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	EL50	43.98 ^{mg} / _l	Tetrahymena pyriformis	Qsar	ECHA	48 h
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	ErC50	1.2 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	96 h

Name of sub- stance	EC No	Endpoint	Value	Species	Method	Source	Expos- ure time
Hydrocarbons, C15-C20, n-al- kanes, isoalkanes, cyc- lics, < 0.03% aromatics	934-956-3	LL50	>1,028 ^{mg} / _l	fish	-	ECHA	96 h
Hydrocarbons, C15-C20, n-al- kanes, isoalkanes, cyc- lics, < 0.03% aromatics	934-956-3	EL50	>10,000 ^{mg} / I	algae	ISO 10253	ECHA	72 h
Hydrocarbons, C15-C20, n-al- kanes, isoalkanes, cyc- lics, < 0.03% aromatics	934-956-3	EC50	>3,193 ^{mg} / _l	copepod (Acar- tia tonsa)	ISO 14669	manufac- turer	48 h
Hydrocarbons, C15-C20, n-al- kanes, isoalkanes, cyc- lics, < 0.03% aromatics	934-956-3	ErC50	>10,000 ^{mg} / I	algae (Scelet- onema cost- atum)	ISO 10253	manufac- turer	72 h
hydrocarbons, C11-C14, n-al- kanes, isoalkanes, cyc- lics, <2% aro- matics	926-141-6	LL50	>1,000 ^{mg} / _l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA	96 h
hydrocarbons, C11-C14, n-al- kanes, isoalkanes, cyc- lics, <2% aro- matics	926-141-6	LL50	>10,000 ^{mg} / I	Chaetogam- marus marinus	EPA OPPTS 850.1020	ECHA	48 h
hydrocarbons, C11-C14, n-al- kanes, isoalkanes, cyc- lics, <2% aro- matics	926-141-6	EL50	>1,000 ^{mg} / _l	daphnia magna	OECD Guideline 202	ECHA	48 h
hydrocarbons, C11-C14, n-al- kanes, isoalkanes, cyc- lics, <2% aro- matics	926-141-6	EL50	>1,000 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	72 h

Name of sub- stance	EC No	Endpoint	Value	Species	Method	Source	Expos- ure time
hydrocarbons, C11-C14, n-al- kanes, isoalkanes, cyc- lics, <2% aro- matics	926-141-6	EL50	>1,000 ^{mg} / _l	Tetrahymena pyriformis	Qsar	ECHA	48 h
2-butoxyethan- ol	203-905-0	LC50	1,474 ^{mg} / _l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA	96 h
2-butoxyethan- ol	203-905-0	ErC50	>1,000 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	72 h
2-butoxyethan- ol	203-905-0	EC50	1,550 ^{mg} / _l	daphnia magna	OECD Guideline 202	ECHA	48 h
2-butoxyethan- ol	203-905-0	EbC50	623 ^{mg} / _l	algae (Desmod- esmus sub- spicatus)	OECD Guideline 201	ECHA	72 h

Aquatic toxicity (chronic)

Harmful to aquatic life with long lasting effects. Test data are not available for the complete mixture.

Aquatic toxicity (chronic) of components of the mixture

Name of sub- stance	EC No	Endpoint	Value	Species	Method	Source	Expos- ure time
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	EL50	1.19 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	EC50	0.328 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	LOEC	0.203 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d

Name of sub- stance	EC No	Endpoint	Value	Species	Method	Source	Expos- ure time
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	NOEC	0.16 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	72 h
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	NOEC	0.372 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	NOELR	0.28 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	NOELR	0.76 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	72 h
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyc- lics, aromatics (2-25%)	919-164-8	growth (Eb- Cx) 10%	0.109 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d
Hydrocarbons, C15-C20, n-al- kanes, isoalkanes, cyc- lics, < 0.03% aromatics	934-956-3	EC50	>100 ^{mg} / _l	microorgan- isms	-	ECHA	3 h
Hydrocarbons, C15-C20, n-al- kanes, isoalkanes, cyc- lics, < 0.03% aromatics	934-956-3	NOELR	>1,000 ^{mg} / _l	daphnia magna	-	ECHA	21 d
2-butoxyethan- ol	203-905-0	EC50	297 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d

Name of sub- stance	EC No	Endpoint	Value	Species	Method	Source	Expos- ure time
2-butoxyethan- ol	203-905-0	NOEC	62.5 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	72 h
2-butoxyethan- ol	203-905-0	NOEC	100 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d
2-butoxyethan- ol	203-905-0	growth (Eb- Cx) 10%	134 ^{mg} / _l	daphnia magna	OECD Guideline 211	ECHA	21 d
2-butoxyethan- ol	203-905-0	growth (Eb- Cx) 10%	308 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	72 h
2-butoxyethan- ol	203-905-0	growth rate (ErCx) 10%	679 ^{mg} / _l	algae (pseudokirch- neriella subcap- itata)	OECD Guideline 201	ECHA	72 h

12.2 Persistence and degradability

Degradability of components of the mixture

Name of substance	EC No	Process	Degradation rate	Time	Method	Source
hydrocarbons, C10-C13, n-al- kanes, isoalkanes, cyclics, aro- matics (2-25%)	919-164-8	oxygen deple- tion	74.7 %	28 d	OECD Guideline 301 F	ECHA
Hydrocarbons, C15-C20, n-al- kanes, isoalkanes, cyclics, < 0.03% aromat- ics	934-956-3	oxygen deple- tion	74 %	28 d	OECD Guideline 306	ECHA
hydrocarbons, C11-C14, n-al- kanes, isoalkanes, cyclics, <2% aromatics	926-141-6	oxygen deple- tion	69 %	28 d	OECD Guideline 301 F	ECHA
2-butoxyeth- anol	203-905-0	carbon diox- ide generation	90.4 %	28 d	OECD Guideline 301 B	ECHA

Biodegradation

No data available.

Persistence

No data available.

12.3 Bioaccumulative potential

Test data are not available for the complete mixture.

Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW
hydrocarbons, C10-C13, n- alkanes, isoalkanes, cyclics, aromatics (2-25%)	-	105	4.2 - 7.2
2-butoxyethanol	111-76-2	-	0.81 (pH value: 7, 25 °C)

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 2

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information		
14.1	UN number or ID number	
	ADR/RID/ADN	UN1950
	IMDG-Code	UN1950
	ΙCAO-TI	UN1950
14.2	UN proper shipping name	
	ADR/RID/ADN	AEROSOLS
	IMDG-Code	AEROSOLS
	ΙCAO-TI	Aerosols, non-flammable
14.3	Transport hazard class(es)	
	ADR/RID/ADN	2 (2.2)
	IMDG-Code	2.2
	ΙCAO-TI	2.2
14.4	Packing group	-
14.5	Environmental hazards	-
14.6	Special precautions for user	-
14.7	Maritime transport in bulk according to IMO instruments	-

14.8 Information for each of the UN Model Regulations

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

Particulars in the transport document	UN1950, AEROSOLS, 2.2, (E)
Classification code	5A
Danger label(s)	2.2
•	
Special provisions (SP)	190, 327, 344, 625
Excepted quantities (EQ)	EO
Limited quantities (LQ)	1 L
Transport category (TC)	3
Tunnel restriction code (TRC)	E

International Maritime Dangerous Goods Code (IMDG) Additional information		
Marine pollutant	-	
Danger label(s)	2.2	
\diamond		
	(2, 100, 277, 277, 244, 201, 050	
Special provisions (SP)	63, 190, 277, 327, 344, 381, 959	
Excepted quantities (EQ)	EO	
Limited quantities (LQ)	1 L	
EmS	F-D, S-U	
Stowage category	-	
International Civil Aviation Organization (I	CAO-IATA/DGR) Additional information	
Danger label(s)	2.2	
•		
Special provisions (SP)	A98, A145, A167	
Excepted quantities (EQ)	EO	

SECTION 15: Regulatory information

Limited quantities (LQ)

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

30 kg

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Name	Name acc. to inventory	CAS No	Restriction
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	this product meets the criteria for clas- sification in accordance with Regulation No 1272/2008/EC	-	R3
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	this product meets the criteria for clas- sification in accordance with Regulation No 1272/2008/EC	-	R3
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	this product meets the criteria for clas- sification in accordance with Regulation No 1272/2008/EC	-	R3
2-butoxyethanol	this product meets the criteria for clas- sification in accordance with Regulation No 1272/2008/EC	-	R3

Legend

R3 1. Shall not be used in:

Legend

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,

- tricks and jokes,

- games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market.

3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:

- can be used as fuel in decorative oil lamps for supply to the general public, and

— present an aspiration hazard and are labelled with H304.

4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).

5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:

(a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
(b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter fluid may lead to life threatening lung damage';
(c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.';

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

None of the ingredients are listed.

Seveso Directive

Not assigned.

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

None of the ingredients are listed.

Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/ 2006 and repealing Regulation (EU) No 98/2013

None of the ingredients are listed.

Regulation on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

Regulation concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Indication of changes: Section 2, 3, 8, 11, 12, 15

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in imple- mentation of Council Directive 98/24/EC
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de nav- igation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/In- land Waterways (ADR/RID/ADN)
Aquatic Chron- ic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical sub- stances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EbC50	≡ 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
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance caus- ing 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-li- cence/)
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

Abbr.	Descriptions of used abbreviations
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
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
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 Regula- tion (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
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality dur- ing a specified time interval
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
LOEC	Lowest Observed Effect Concentration
log KOW	n-Octanol/water
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
NOELR	No Observed Effect Loading Rate
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Press. Gas	Gas under pressure
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)

Abbr.	Descriptions of used abbreviations
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
SVHC	Substance of Very High Concern
TWA	Time-weighted average
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).

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. 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 chapter 2 and 3)

Code	Text
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H372	Causes damage to organs (central nervous system) through prolonged or repeated exposure (if in- haled).
H412	Harmful to aquatic life with long lasting effects.

Responsible for the safety data sheet

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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.