Certified A/C PRO Auto Air Conditioning Evaporator Odor Eliminator Version number: 5.0 Replaces version of: 2020-09-24 (4) **SECTION 1: Identification**

1.1 **Product identifier**

Trade name

Certified A/C PRO Auto Air Conditioning Evaporator Odor Eliminator

048168025671

General use

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

Relevant identified uses

Alternative number(s)

1.3 Details of the supplier of the safety data sheet

Energizer Manufacturing, Inc. 25225 Detroit Rd. Westlake OH 44145 United States

Telephone: 800-383-7323; 314-985-2000 (USA / CANADA) Website: http://data.energizer.com

Energizer Trading Ltd. Sword House, Totteridge Road, High Wycombe, HP13 6DG, UK

Telephone: +44(0)8000353376 e-mail: ConsumerServiceEU@energizer.com

1.4 **Emergency telephone number**

Emergency information service

1-314-985-1511 Int'l: 1-800-526-4727 This number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard state- ment
B.3	flammable aerosol	2	Flam. Aerosol 2	H223
B.5	gases under pressure	С	Press. Gas C	H280

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects Contains gas under pressure; may explode if heated.



Revision: 2020-10-21



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word warning
- Pictograms
- GHS02, GHS04



- Hazard statements

H223	Flammable aerosol.			
H280	Contains gas under pressure; may explode if heated.			
Dracautianary statements				

- Precautionary statements P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. P210 Do not spray on an open flame or other ignition source. P211 Pressurized container: Do not pierce or burn, even after use. P251 P410+P403 Protect from sunlight. Store in a well-ventilated place. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3 Other hazards

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

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Fluorinated alkane	CAS No trade secret	1-<5	Flam. Gas 1 / H220 Press. Gas C / H280	
2-butoxyethanol	CAS No 111-76-2	1-<5	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Flam. Liq. 4 / H227	(!)



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Sodium alkyl sulfate	CAS No trade secret	1-<5	Acute Tox. 4 / H302 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Dam. 1 / H318 STOT SE 3 / H335 Flam. Sol. 2 / H228	

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first- aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. 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

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

Following skin contact

Thaw frosted parts with lukewarm water. Do not rub affected area.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. 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.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Contact with the product can cause burns and/or frostbite. Contains gas under pressure; may explode if heated.



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

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. Coordinate 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.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

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

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

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

7.2 Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

Managing of associated risks

- Flammability hazards

Do not spray on an open flame or other ignition source. Protect from sunlight.

Control of the effects

Protect against external exposure, such as

Frost

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) 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

Occup	Occupational exposure limit values (Workplace Exposure Limits)										
Coun try	Name of agent	CAS No	Iden- tifier	TWA [ppm]	TWA [mg/ m³]	STEL [ppm]	STEL [mg/ m³]	Ceil- ing-C [ppm]	Ceil- ing-C [mg/ m³]	Nota tion	Sourc e
US	2-butoxyethanol	111-76-2	REL	5 (10 h)	24 (10 h)						NIOSH REL
US	2-butoxyethanol	111-76-2	TLV®	20							AC- GIH® 2019
US	2-butoxyethanol	111-76-2	PEL	50	240						29 CFR 1910.1 000
US	2-butoxyethanol (EGBE) (glycol monobutyl ether)	111-76-2	PEL (CA)	20	97						Cal/ OSHA PEL

Notation

TWA

Ceiling-C ceiling value is a limit value above which exposure should not occur STEL short-term exposure limit: a limit value above which exposure shoul

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)

time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours timeweighted average (unless otherwise specified

Version number: 5.0 Replaces version of: 2020-09-24 (4)

Г

Revision: 2020-10-21

Biological limit values							
Country	Name of agent	Parameter	Nota- tion	Identifier	Value	Source	
US	2-butoxyethanol	Butoxyacetic acid (BAA)	hydr, crea	BEI®	200 mg/g	ACGIH® 2019	
Notation crea hydr	creatinine hydrolysis						

Relevant DNELs of	Relevant DNELs of components of the mixture					
Name of substance	CAS No	End- point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Fluorinated alkane	trade secret	DNEL	2,713 mg/ m³	human, inhalatory	worker (industry)	chronic - system- ic effects
2-butoxyethanol	111-76-2	DNEL	98 mg/m ³	human, inhalatory	worker (industry)	chronic - system- ic effects
2-butoxyethanol	111-76-2	DNEL	1,091 mg/ m³	human, inhalatory	worker (industry)	acute - systemic effects
2-butoxyethanol	111-76-2	DNEL	246 mg/m ³	human, inhalatory	worker (industry)	acute - local ef- fects
2-butoxyethanol	111-76-2	DNEL	125 mg/kg bw/day	human, dermal	worker (industry)	chronic - system- ic effects
2-butoxyethanol	111-76-2	DNEL	89 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
Sodium alkyl sulfate	trade secret	DNEL	285 mg/m³	human, inhalatory	worker (industry)	chronic - system- ic effects
Sodium alkyl sulfate	trade secret	DNEL	4,060 mg/ kg bw/day	human, dermal	worker (industry)	chronic - system- ic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	End- point	Threshold level	Organism	Environmental compartment	Exposure time
Fluorinated alkane	trade secret	PNEC	0.048 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
Fluorinated alkane	trade secret	PNEC	0.019 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)
Fluorinated alkane	trade secret	PNEC	0.0048 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)



Version number: 5.0 Replaces version of: 2020-09-24 (4)

Revision: 2020-10-21

Relevant PNECs of	Relevant PNECs of components of the mixture					
Name of substance	CAS No	End- point	Threshold level	Organism	Environmental compartment	Exposure time
Fluorinated alkane	trade secret	PNEC	0.19 ^{mg} / _{kg}	aquatic organisms	freshwater sedi- ment	short-term (single instance)
Fluorinated alkane	trade secret	PNEC	0.141 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
Fluorinated alkane	trade secret	PNEC	0.48 ^{mg} / _l	aquatic organisms	water	intermittent re- lease
2-butoxyethanol	111-76-2	PNEC	9.1 ^{mg} / _l	aquatic organisms	water	intermittent re- lease
2-butoxyethanol	111-76-2	PNEC	8.8 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	0.88 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	463 ^{mg} / _l	aquatic organisms	sewage treat- ment plant (STP)	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	34.6 ^{mg} / _{kg}	aquatic organisms	freshwater sedi- ment	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	3.46 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	2.33 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
Sodium alkyl sulfate	trade secret	PNEC	0.176 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
Sodium alkyl sulfate	trade secret	PNEC	0.018 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
Sodium alkyl sulfate	trade secret	PNEC	0.055 ^{mg} / _l	aquatic organisms	water	intermittent re- lease
Sodium alkyl sulfate	trade secret	PNEC	1.35 ^{mg} / _l	aquatic organisms	sewage treat- ment plant (STP)	short-term (single instance)
Sodium alkyl sulfate	trade secret	PNEC	6.97 ^{mg} / _{kg}	aquatic organisms	freshwater sedi- ment	short-term (single instance)
Sodium alkyl sulfate	trade secret	PNEC	0.697 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)
Sodium alkyl sulfate	trade secret	PNEC	1.29 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear protective gloves.

- 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.

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

Appearance

Physical state	aerosol (spray aerosol)
Color	various
Odor	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	100 °C
Flash point	not determined
Evaporation rate	not determined

Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

Flammability (solid, gas)	flammable aerosol in accordance with GHS criteria
Explosive limits	
- Lower explosion limit (LEL)	3.7 vol%
- Upper explosion limit (UEL)	18 vol%
Vapor pressure	514,624 Pa at 25 °C
Density	not determined
Vapor density	this information is not available
Relative density	information on this property is not available
Solubility(ies)	not determined
Partition coefficient	
- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	
Viscosity	not relevant (aerosol)
Explosive properties	none
Oxidizing properties	none
Other information	

Propellant content

4 %

SECTION 10: Stability and reactivity

10.1 Reactivity

9.2

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Gas under pressure. Risk of ignition.

If heated:

Danger of explosion, Gas under pressure, Danger of bursting container

10.2 Chemical stability

See below "Conditions to avoid".



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Do not spray on an open flame or other ignition source. Keep away from heat.

Hints to prevent fire or explosion

Protect from sunlight.

10.5 Incompatible materials

Oxidizers

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 OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture				
Name of substance	CAS No	Exposure route	ATE	
2-butoxyethanol	111-76-2	oral	1,414 ^{mg} / _{kg}	
2-butoxyethanol	111-76-2	inhalation: vapor	11 ^{mg} / _l /4h	
Sodium alkyl sulfate	trade secret	oral	1,200 ^{mg} / _{kg}	
Sodium alkyl sulfate	trade secret	inhalation: dust/mist	4h/µ/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 sensitization

Shall not be classified as a respiratory or skin sensitizer.



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans					
Name of substance CAS No Classification Number					
2-butoxyethanol	111-76-2	3			

Legend

Not classifiable as to carcinogenicity in humans

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.

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.

Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

12.6 Other adverse effects

Endocrine disrupting potential

None of the ingredients are listed.

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

Only packagings which are approved (e.g. acc. to DOT) may be used. 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. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECT	ION 14: Transport information	
14.1	UN number	1950
14.2	UN proper shipping name	Aerosols
14.3	Transport hazard class(es)	
	Class	2.1 (gases) (aerosol) (flammable)
14.4	Packing group	not assigned to a packing group
14.5	Environmental hazards	non-environmentally hazardous acc. to the danger- ous goods regulations
14.6	Special precautions for user There is no additional information.	
14.7	Transport in bulk according to Annex II of MARP The cargo is not intended to be carried in bulk.	OL and the IBC Code
	Information for each of the UN Model Regulation	ns
	Transport of dangerous goods by road or rail (49	CFR US DOT)
	Index number	1950

Index number	1950
Proper shipping name	Aerosols
- Particulars in the shipper's declaration	UN1950, Aerosols, 2.1
Class	2.1

Certified A/C PRO Auto Air Conditioning Evaporator Odor Eliminator

s version of: 2020-09-24 (4)	
Danger label(s)	2.1
	
Special provisions (SP)	N82
ERG No	126
International Maritime Dangerous Goods Co	ode (IMDG)
UN number	1950
Proper shipping name	AEROSOLS
- Particulars in the shipper's declaration	UN1950, AEROSOLS, 2.1
Class	2.1
Marine pollutant	-
Danger label(s)	2.1
e	
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 (IC	AO-IATA/DGR)
UN number	1950
Proper shipping name	Aerosols, flammable
- Particulars in the shipper's declaration	UN1950, Aerosols, flammable, 2.1
Class	2.1
Danger label(s)	2.1
	
Special provisions (SP)	A145, A167
Excepted quantities (EQ)	EO
Limited quantities (LQ)	30 kg



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA)all ingredients are listed

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313) none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4) none of the ingredients are listed

Clean Air Act

Name of substance	CAS No	Type of registra- tion	Basis for listing	Threshold quantity (lbs)
Fluorinated alkane	75-37-6	Flammable sub- stance	f	10000

Legend

f Flammable gas.

Right to Know Hazardous Substance List

- Toxic or Hazardous Substance List (MA-TURA)

Name of substance	Name acc. to inventory	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Thres hold	De Minimis Concentra- tion Threshold
2-butoxyethanol	Glycol Ethers		1022			1.0 %

- Hazardous Substances List (MN-ERTK)

Name of substance	Name acc. to inventory	CAS No	References	Remarks
2-butoxyethanol	2-Butoxyethanol(EGBE)	111-76-2	A, O	skin

Legend

А

American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part

O Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

Legend

If a potential for absorption from skin contact merits special consideration, the word "skin" follows the substance name. skin

- Hazardous Substance List (NJ-RTK)

Name of substance	Name acc. to inventory	CAS No	Remarks	Classifications
2-butoxyethanol	2-butoxyethanol (butyl cello- solve)	111-76-2		CA F2
Fluorinated alkane	1,1-difluoroethane	75-37-6		F4

Legend

CA Carcinogenic

Flammable - Second Degree Flammable - Fourth Degree F2

F4

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name of substance	Name acc. to inventory	CAS No	Classification
2-butoxyethanol	ETHANOL, 2-BUTOXY-	111-76-2	

- Hazardous Substance List (RI-RTK)

Name of substance	Name acc. to inventory	CAS No	References
2-butoxyethanol	2-Butoxyethanol	111-76-2	Т

Legend

Toxicity (ACGIH®) T

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and **Toxic Enforcement Act of 1987**

none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	0	no significant risk to health
Flammability	4	material that rapidly or completely vaporizes at atmospheric pressure and normal am- bient temperature or that is readily dispersed in air and burn readily
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with wa- ter, polymerize, decompose, condense, or self-react. Non-explosive

Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

Category	Rating	Description
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

Legend AICS

CICR

Australian Inventory of Chemical Substances

CSCL-ENCS DSL ECSI

Chemical Inventory of Chemical Substances Chemical Inventory and Control Regulation List of Existing and New Chemical Substances (CSCL-ENCS) Domestic Substances List (DSL) EC Substance Inventory (EINECS, ELINCS, NLP) Inventory of Existing Chemical Substances Produced or Imported in China National Inventory of Chemical Substances IECSC

INSQ National Inventory of Chemical Substances



Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

Legend	
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

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

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
15.1		NFPA® 704: change in the listing (table)	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Sub- stances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2019	From ACGIH®, 2019 TLVs® and BEIs® Book. Copyright 2019. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presenta-tions/tlv-bei-position-statement
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)



Version number: 5.0 Replaces version of: 2020-09-24 (4)

Revision: 2020-10-21

Abbr.	Descriptions of used abbreviations
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
Flam. Sol.	Flammable solid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
ΙΑΤΑ	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LHS	Lower hazard substance
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Press. Gas	Gas under pressure
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin

Version number: 5.0 Replaces version of: 2020-09-24 (4) Revision: 2020-10-21

Abbr.	Descriptions of used abbreviations
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). 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 chapter 2 and 3)

Code	Text
H220	Extremely flammable gas.
H223	Flammable aerosol.
H227	Combustible liquid.
H228	Flammable solid.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

Disclaimer

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