



# Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

## A/C Pro Super Seal A/C Treatment Formulated for all R-134a Systems

Version number: 8.2  
Replaces version of: 2022-10-20 (7)

Revision: 2023-09-11

### SECTION 1: Identification

#### 1.1 Product identifier

Trade name

**A/C Pro Super Seal A/C Treatment Formulated for all R-134a Systems**

Alternative number(s)

048168453146, 05020144227861

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

Relevant identified uses

General use

#### 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)  
e-mail: Autocare.regulatory@energizer.com  
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

FOR EMERGENCY in USA & Canada CALL +1 800 255-3924 / For International CALL +1 813 248 0585  
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 statement
A.1I	acute toxicity (inhal.)	4	Acute Tox. 4	H332
B.3	flammable aerosol	1	Flam. Aerosol 1	H222
B.5	gases under pressure	C	Press. Gas C	H280

For full text of abbreviations: see SECTION 16.

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The most important adverse physicochemical, human health and environmental effects

Contains gas under pressure; may explode if heated.

### 2.2 Label elements

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

- Signal word danger

- Pictograms

GHS02, GHS04, GHS07



- Hazard statements

H222	Extremely flammable aerosol.
H280	Contains gas under pressure; may explode if heated.
H332	Harmful if inhaled.

- 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.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.
P261	Avoid breathing mist/vapors.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P312	Call a poison center/doctor if you feel unwell.
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.

- Hazardous ingredients for labelling Vinylsilane derivative, Ethanediamine derivative, methanol

### 2.3 Other hazards

Hazards not otherwise classified

May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).  
Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0.1\%$ .

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0.1\%$ .

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### 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
R-134a	CAS No 811-97-2	50 – < 75	Press. Gas C / H280	
Vinylsilane derivative	CAS No trade secret	10 – < 25	Acute Tox. 4 / H332 Flam. Liq. 3 / H226	 
Ethanediamine derivative	CAS No trade secret	5 – < 10	Acute Tox. 4 / H332	
Dimethyl adipate	CAS No Trade secret	1 – < 5	Acute Tox. 4 / H312	
Methoxysilane derivative	CAS No trade secret	1 – < 5	Flam. Liq. 2 / H225	
methanol	CAS No 67-56-1	< 1	Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331 STOT SE 1 / H370 Flam. Liq. 2 / H225	  

For full text of abbreviations: see SECTION 16.

Legend: Press. Gas

Press. Gas C: Gas under pressure: compressed gas

Press. Gas L: Gas under pressure: liquefied gas

Press. Gas R: Gas under pressure: refrigerated liquefied gas

Press. Gas D: Gas under pressure: dissolved gas.

### 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.



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#### 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.

Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 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.



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## 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

## 6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

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

Managing of associated risks

- Flammability hazards

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

- Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted.

- 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.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Ceiling-C [ppm]	Ceiling-C [mg/m <sup>3</sup> ]	Notation	Source
US	methanol	67-56-1	TLV®	200		250				H	ACGIH® 2023
US	methyl alcohol	67-56-1	REL	200 (10 h)	260 (10 h)	250	325				NIOSH REL
US	methyl alcohol	67-56-1	PEL	200	260						29 CFR 1910.1000
US	methyl alcohol (methanol)	67-56-1	PEL (CA)	200	260	250	325	1,000			Cal/OSHA PEL

##### Notation

##### Ceiling-C

H

STEL

TWA

ceiling value is a limit value above which exposure should not occur

absorbed through the skin

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 time-weighted average (unless otherwise specified)

##### Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
US	methanol	methanol		BEI®	15 mg/l	ACGIH® 2023

##### Relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
R-134a	811-97-2	DNEL	13,936 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Dimethyl adipate	Trade secret	DNEL	8.3 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects



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### 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
Dimethyl adipate	Trade secret	DNEL	8.3 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

### Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
R-134a	811-97-2	PNEC	0.1 mg/l	aquatic organisms	freshwater	short-term (single instance)
R-134a	811-97-2	PNEC	0.01 mg/l	aquatic organisms	marine water	short-term (single instance)
R-134a	811-97-2	PNEC	73 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
R-134a	811-97-2	PNEC	0.75 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Dimethyl adipate	Trade secret	PNEC	0.18 mg/l	aquatic organisms	water	intermittent release
Dimethyl adipate	Trade secret	PNEC	0.018 mg/l	aquatic organisms	freshwater	short-term (single instance)
Dimethyl adipate	Trade secret	PNEC	0.002 mg/l	aquatic organisms	marine water	short-term (single instance)
Dimethyl adipate	Trade secret	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Dimethyl adipate	Trade secret	PNEC	0.16 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)



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Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Dimethyl adipate	Trade secret	PNEC	0.016 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Dimethyl adipate	Trade secret	PNEC	0.09 mg/kg	terrestrial organisms	soil	short-term (single instance)
methanol	67-56-1	PNEC	20.8 mg/l	aquatic organisms	freshwater	short-term (single instance)
methanol	67-56-1	PNEC	2.08 mg/l	aquatic organisms	marine water	short-term (single instance)
methanol	67-56-1	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
methanol	67-56-1	PNEC	77 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
methanol	67-56-1	PNEC	7.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
methanol	67-56-1	PNEC	100 mg/kg	terrestrial organisms	soil	short-term (single instance)

### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

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.



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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### Appearance

Physical state	aerosol (spray aerosol)
Color	not determined
Particle	not relevant (aerosol)
Odor	characteristic

##### Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	102 °C at 1,013 hPa
Flash point	7.7 °C at 101.3 kPa
Evaporation rate	Not determined
Flammability (solid, gas)	flammable aerosol in accordance with GHS criteria

##### Explosive limits

- Lower explosion limit (LEL)	1.42 vol%
- Upper explosion limit (UEL)	22.7 vol%
Vapor pressure	5.74 bar at 20 °C
Density	not determined
Vapor density	this information is not available
Relative density	Information on this property is not available
Solubility(ies)	not determined



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### Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	224 °C (auto-ignition temperature (liquids and gases))
Viscosity	not relevant (aerosol)
Explosive properties	none
Oxidizing properties	none

### 9.2 Other information

Propellant content	50 %
Temperature class (USA, acc. to NEC 500)	T2D (maximum permissible surface temperature on the equipment: 215°C)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

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".

### 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.



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### 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

Harmful if inhaled.

GHS of the United Nations, annex 4: May be harmful in contact with skin.

##### - Acute toxicity estimate (ATE)

Inhalation: gas 11,853 ppmV/4h

##### Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Vinylsilane derivative	trade secret	inhalation: gas	2,773 ppmV/4h
Vinylsilane derivative	trade secret	inhalation: vapor	11 mg/l/4h
Ethanediamine derivative	trade secret	inhalation: vapor	11 mg/l/4h
Ethanediamine derivative	trade secret	inhalation: dust/mist	>1.49 mg/l/4h
Dimethyl adipate	Trade secret	dermal	>1,000 mg/kg
methanol	67-56-1	oral	100 mg/kg
methanol	67-56-1	dermal	300 mg/kg
methanol	67-56-1	inhalation: vapor	3 mg/l/4h

##### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

##### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

##### Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.



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### 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

Toxic to aquatic life with long lasting effects.

#### Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
R-134a	811-97-2	LC50	560 mg/l	fish	24 h
R-134a	811-97-2	EC50	960 mg/l	aquatic invertebrates	24 h
Vinylsilane derivative	trade secret	LC50	191 mg/l	fish	96 h
Vinylsilane derivative	trade secret	EC50	168.7 mg/l	aquatic invertebrates	48 h
Vinylsilane derivative	trade secret	NOEC	100 mg/l	fish	96 h
Ethanediamine derivative	trade secret	LC50	597 mg/l	fish	96 h
Ethanediamine derivative	trade secret	EC50	81 mg/l	aquatic invertebrates	48 h
Ethanediamine derivative	trade secret	ErC50	8.8 mg/l	algae	72 h
Ethanediamine derivative	trade secret	NOEC	344 mg/l	fish	96 h
Dimethyl adipate	Trade secret	EC50	72 mg/l	aquatic invertebrates	48 h
Dimethyl adipate	Trade secret	NOEC	12.5 mg/l	algae	72 h
Methoxysilane derivative	trade secret	LC50	>110 mg/l	fish	96 h
Methoxysilane derivative	trade secret	EC50	>122 mg/l	aquatic invertebrates	48 h

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### Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Methoxysilane derivative	trade secret	NOEC	$\geq 110 \text{ mg/l}$	fish	96 h
methanol	67-56-1	LC50	$15,400 \text{ mg/l}$	fish	96 h
methanol	67-56-1	EC50	$12,700 \text{ mg/l}$	fish	96 h
methanol	67-56-1	ErC50	$22,000 \text{ mg/l}$	algae	96 h

### Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
R-134a	811-97-2	EC50	$> 730 \text{ mg/l}$	microorganisms	6 h
Vinylsilane derivative	trade secret	EC50	$119 \text{ mg/l}$	aquatic invertebrates	21 d
Vinylsilane derivative	trade secret	NOEC	$28.1 \text{ mg/l}$	aquatic invertebrates	21 d
Vinylsilane derivative	trade secret	LOEC	$52.4 \text{ mg/l}$	aquatic invertebrates	21 d
Ethanediamine derivative	trade secret	EC50	$67 \text{ mg/l}$	microorganisms	16 h
Methoxysilane derivative	trade secret	NOEC	$\geq 100 \text{ mg/l}$	aquatic invertebrates	21 d

### 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

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0.1\%$ .

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0.1\%$ .

### 12.7 Other adverse effects

Data are not available.



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### 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.

### SECTION 14: Transport information

#### 14.1 UN number

DOT	UN 2037
IMDG-Code	UN 2037
ICAO-TI	UN 2037

#### 14.2 UN proper shipping name

DOT	Receptacles, small, containing gas
IMDG-Code	RECEPTACLES, SMALL, CONTAINING GAS
ICAO-TI	Receptacles, small, containing gas

#### 14.3 Transport hazard class(es)

DOT	2.1
IMDG-Code	2.1
ICAO-TI	2.1

#### 14.4 Packing group

not assigned

#### 14.5 Environmental hazards

hazardous to the aquatic environment

##### 14.5.1 Additional information

LTD QTY

Environmentally hazardous substance (aquatic environment)

Benzene derivatives

#### 14.6 Special precautions for user

There is no additional information.

#### 14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

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### Information for each of the UN Model Regulations

#### Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN2037, Receptacles, small, containing gas, 2.1, environmentally hazardous
Reportable quantity (RQ)	1,068,427 lbs (485,066 kg) (xylene) (methanol)
Danger label(s)	2.1, fish and tree



Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	LTD QTY
ERG No	115

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

Particulars in the shipper's declaration	UN2037, RECEPTACLES, SMALL, CONTAINING GAS, (Benzene derivatives), 2.1, 7.7°C c.c., MARINE POLLUTANT
Marine pollutant	yes (hazardous to the aquatic environment)
Danger label(s)	2.1, fish and tree



Special provisions (SP)	191, 277, 303, 327, 344, 959
Excepted quantities (EQ)	E0
Limited quantities (LQ)	1 L
EmS	F-D, S-U
Stowage category	B

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

Particulars in the shipper's declaration	UN2037, Receptacles, small, containing gas, 2.1
Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	2.1



Special provisions (SP)	A145, A167
Excepted quantities (EQ)	E0
Limited quantities (LQ)	1 kg



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### 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 (ACTIVE) or exempt from listing

##### Superfund Amendment and Reauthorization Act (SARA TITLE III )

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings

Name of substance	CAS No	Remarks	Effective date
methanol	67-56-1		1987-01-01

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

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
methanol	67-56-1		3 4	5000 (2270)

##### Legend

3 "3" indicates that the source is section 112 of the Clean Air Act

4 "4" indicates that the source is section 3001 of the Resource Conservation and Recovery Act (RCRA)

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

Proposition 65 List of chemicals

Name acc. to inventory	CAS No	Remarks	Type of the toxicity
methanol	67-56-1		developmental
toluene	108-88-3		developmental

##### Industry or sector specific available guidance(s)

##### NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.





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Category	Rating	Description
Chronic	/	none
Health	0	no significant risk to health
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
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	AIIC	all ingredients are listed
CA	DSL	not all ingredients are listed
CA	NDSL	not all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	not all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed



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Country	Inventory	Status
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)
VN	NCI	not all ingredients are listed

### Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NCI	National Chemical Inventory
NDSL	Non-domestic Substances List (NDSL)
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-relevant
2.1		Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200): change in the listing (table)	yes
2.2		- Pictograms: change in the listing (table)	yes
2.2		- Hazard statements: change in the listing (table)	yes
2.2		- Precautionary statements: change in the listing (table)	yes
2.3		Hazards not otherwise classified: change in the listing (table)	yes



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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.3		Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0.1\%$ .	yes
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0.1\%$ .	yes
3.2		Legend: Press. Gas: Press. Gas C: Gas under pressure: compressed gas Press. Gas L: Gas under pressure: liquefied gas Press. Gas R: Gas under pressure: refrigerated liquefied gas Press. Gas D: Gas under pressure: dissolved gas.	yes
6.2	Environmental precautions: Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.	Environmental precautions: Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.	yes
8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)	yes
8.1		Biological limit values: change in the listing (table)	yes
8.2	Hand protection: 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.	Hand protection: Wear protective gloves.	yes
11.1	Respiratory or skin sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.	Respiratory or skin sensitization: Shall not be classified as a respiratory or skin sensitizer.	yes
12.1	Toxicity: Harmful to aquatic life.	Toxicity: Toxic to aquatic life with long lasting effects.	yes
12.1		Aquatic toxicity (acute) of components of the mixture: change in the listing (table)	yes
12.1		Aquatic toxicity (chronic) of components of the mixture: change in the listing (table)	yes



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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
12.5	Results of PBT and vPvB assessment: Data are not available.	Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0.1\%$ .	yes
12.6	Endocrine disrupting properties: None of the ingredients are listed.	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0.1\%$ .	yes
14.5	Environmental hazards: non-environmentally hazardous acc. to the dangerous goods regulations	Environmental hazards: hazardous to the aquatic environment	yes
14.5.1		Environmentally hazardous substance (aquatic environment): Benzene derivatives	yes
14.7	Particulars in the shipper's declaration: UN2037, Receptacles, small, containing gas, 2.1	Particulars in the shipper's declaration: UN2037, Receptacles, small, containing gas, 2.1, environmentally hazardous	yes
14.7	Danger label(s): 2.1	Danger label(s): 2.1, fish and tree	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Environmental hazards: yes (hazardous to the aquatic environment)	yes
14.7	Particulars in the shipper's declaration: UN2037, RECEPTACLES, SMALL, CONTAINING GAS, 2.1, 7.7°C c.c.	Particulars in the shipper's declaration: UN2037, RECEPTACLES, SMALL, CONTAINING GAS, (Benzene derivatives), 2.1, 7.7°C c.c., MARINE POLLUTANT	yes
14.7	Marine pollutant: -	Marine pollutant: yes (hazardous to the aquatic environment)	yes
14.7	Danger label(s): 2.1	Danger label(s): 2.1, fish and tree	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Environmental hazards: yes (hazardous to the aquatic environment)	yes
15.1	Toxic Substance Control Act (TSCA): all ingredients are listed	Toxic Substance Control Act (TSCA): all ingredients are listed (ACTIVE) or exempt from listing	yes
15.1		NPCA-HMIS® III: change in the listing (table)	yes



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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
15.1		National inventories: 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 Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2023	From ACGIH®, 2023 TLVs® and BEIs® Book. Copyright 2023. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: <a href="http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement">http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement</a>
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
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EINECS	European Inventory of Existing Commercial Chemical Substances
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
ERG No	Emergency Response Guidebook - Number
Flam. Liq.	Flammable liquid
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)



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Abbr.	Descriptions of used abbreviations
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
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LOEC	Lowest Observed Effect Concentration
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
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
Press. Gas C	Compressed gas
Press. Gas D	Dissolved gas
Press. Gas L	Liquefied gas
Press. Gas R	Refrigerated liquefied gas
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
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.



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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 section 2 and 3)

Code	Text
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H280	Contains gas under pressure; may explode if heated.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H370	Causes damage to organs.

### Disclaimer

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