Energizer.

Holdings, Inc.

acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21

Replaces version of: 2020-06-09 (4)

SECTION 1: Identification

1.1 Product identifier

Trade name Certified A/C PRO Auto Air Conditioning R-134a

Ester Refrigerant Oil with ICE 32 Performance

Enhancer

Alternative number(s)

048168026579, 048168031405

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)

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)

This mixture does not meet the criteria for classification.

2.2 Label elements

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

Signal word not requiredPictograms not required

- Precautionary statements

P102 Keep out of reach of children.

United States: en Page: 1 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with **ICE 32 Performance Enhancer**

Revision: 2020-10-21 Version number: 5.0

Replaces version of: 2020-06-09 (4) Other hazards

2.3

There is no additional information.

Hazards not otherwise classified

May be harmful if swallowed (GHS category 5: acutely toxic - oral).

May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).

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
Fatty acids, C14-18 and C16-18-unsatd.	CAS No Proprietary	75 – < 90	Acute Tox. 1 / H330	

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

Wash with plenty of soap and water.

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.

United States: en Page: 2 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

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, Foam, ABC-powder

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

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, Take up mechanically

Advice on how to clean up a spill

Take up mechanically.

United States: en Page: 3 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

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. Ground/bond container and receiving equipment.
- Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

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

- Explosive atmospheres Removal of dust deposits.
- 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

This information is not available.

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
Fatty acids, C14-18	Proprietary	DNEL	17.63 mg/	human, inhalatory	worker (industry)	chronic - system-

United States: en Page: 4 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number; 5.0 Revision: 2020-10-21

Replaces version of: 2020-06-09 (4)

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
and C16-18-unsatd.			m³			ic effects
Fatty acids, C14-18 and C16-18-unsatd.	Proprietary	DNEL	10 mg/kg bw/day	human, dermal	worker (industry)	chronic - system- ic effects

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

In case of inadequate ventilation wear respiratory protection.

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	solid
Color	various
Odor	characteristic

United States: en Page: 5 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

Other safety parameters

pH (value)	not applicable
Melting point/freezing point	not determined
Initial boiling point and boiling range	225 °C at 10 mbar
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	this material is combustible, but will not ignite readily
Explosion limits of dust clouds	not determined
Vapor pressure	not determined
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	>250 °C (relative self-ignition temperature for solids)
Viscosity	not relevant (solid matter)
Explosive properties	none
Oxidizing properties	none

9.2 Other information

Temperature class (USA, acc. to NEC 500)	T2C (maximum permissible surface temperature on the equipment: 230°C)
------------------------------------------	-----------------------------------------------------------------------

United States: en Page: 6 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

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)

This mixture does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

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

- Acute toxicity estimate (ATE)

Inhalation: vapor 0.1848 ^{mg}/_l/4h Inhalation: dust/mist 0.005704 ^{mg}/_l/4h

United States: en Page: 7 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number; 5.0 Revision: 2020-10-21

Replaces version of: 2020-06-09 (4)

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Fatty acids, C14-18 and C16-18-unsatd.	Proprietary	inhalation: vapor	0.162 ^{mg} / _l /4h
Fatty acids, C14-18 and C16-18-unsatd.	Proprietary	inhalation: dust/mist	0.005 ^{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.

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.

United States: en Page: 8 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

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.

SECTION 14: Transport information

14.1 UN number 1759

14.2 UN proper shipping name Corrosive solid, n.o.s.

Technical name (hazardous ingredients) phosphoric acid, Fatty acids, C14-18 and C16-18-un-

satd.

14.3 Transport hazard class(es)

Class 8 (corrosive substances)

14.4 Packing group III (substance presenting low danger)

14.5 Environmental hazards non-environmentally hazardous acc. to the danger-

ous goods regulations

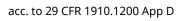
14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

United States: en Page: 9 / 17





Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

Information for each of the UN Model Regulations

DOT

Transport of dangerous goods by road or rail (49 CFR US DOT)

Index number 1759

Proper shipping name Corrosive solid, n.o.s.

- Particulars in the shipper's declaration UN1759, Corrosive solid, n.o.s., (contains: phos-

phoric acid, Fatty acids, C14-18 and C16-18-

unsatd.), 8, III

- Reportable quantity (RQ) 4,292,888 lbs (1,948,971 kg) (phosphoric acid)

Class 8
Packing group III
Danger label(s) 8



Special provisions (SP) 128, IB8, IP3, T1, TP33

ERG No 154

International Maritime Dangerous Goods Code (IMDG)

UN number 1759

Proper shipping name CORROSIVE SOLID, N.O.S.

- Particulars in the shipper's declaration UN1759, CORROSIVE SOLID, N.O.S., (contains:

phosphoric acid, Fatty acids, C14-18 and C16-18-un-

satd.), 8, III

Class 8
Marine pollutant Packing group III
Danger label(s) 8



Special provisions (SP)

Excepted quantities (EQ)

Limited quantities (LQ)

EmS

End

E1

5 kg

F-A, S-B

United States: en Page: 10 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

Stowage category A

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number 1759

Proper shipping name Corrosive solid, n.o.s.

- Particulars in the shipper's declaration UN1759, Corrosive solid, n.o.s., (contains: phos-

phoric acid, Fatty acids, C14-18 and C16-18-

unsatd.), 8, III

Class 8
Packing group III
Danger label(s) 8



Special provisions (SP)

Excepted quantities (EQ)

Limited quantities (LQ)

5 kg

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

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

United States: en Page: 11 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	Name acc. to inventory	CAS No	Functional- ity	Authoritative Lists
Fatty acids, C14-18 and C16-18- unsatd.		Propriet- ary	soap base	
Benzene derivatives		Trade secret	surfactant	
Phosphoric acid	Phosphoric acid	7664-38-2	cleaning agent	OEHHA RELS

- 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
phosphoric acid	Phosphoric acid	7664-38-2				1.0 %

- Hazardous Substance List (NJ-RTK)

Name of substance	Name acc. to inventory	CAS No	Remarks	Classifications
phosphoric acid	phosphoric acid	7664-38-2		со

Legend

CO Corrosive

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

Name of substance	Name acc. to inventory	CAS No	Classification
phosphoric acid	PHOSPHORIC ACID	7664-38-2	E

Legend

E Environmental hazard

- Hazardous Substance List (RI-RTK)

Name of substance	Name acc. to inventory	CAS No	References
phosphoric acid	Orthophosphoric acid	7664-38-2	Т, F

Legend

F Flammability (NFPA®)
T Toxicity (ACGIH®)

United States: en Page: 12 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

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	4	life-threatening; major or permanent damage may result from single or repeated over- exposures
Flammability	2	material that must be moderately heated or exposed to relatively high ambient tem- peratures 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	4	material that, under emergency conditions, can be lethal
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	not all ingredients are listed
CA	NDSL	not all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed

United States: en Page: 13 / 17

acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with **ICE 32 Performance Enhancer**

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

Country	Inventory	Status
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	not 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 Australian Inventory of Chemical Substances Chemical Inventory and Control Regulation

List of Existing and New Chemical Substances (CSCL-ENCS)

CICR CSCL-ENCS DSL

ECSI

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
Vorce Existing Chemical Substances

IECSC INSQ KECI Korea Existing Chemicals 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 Taiwan Chemical Substance Inventory TCSI

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
4.1	Following skin contact: Brush off loose particles from skin. Rinse skin with water/shower.	Following skin contact: Wash with plenty of soap and water.	yes
5.2	Special hazards arising from the substance or mixture: Deposited combustible dust has considerable explosion potential.	Special hazards arising from the substance or mixture	yes

United States: en Page: 14 / 17





Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
7.1	- Measures to prevent fire as well as aerosol and dust generation: Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment.	- Measures to prevent fire as well as aerosol and dust generation: Use local and general ventilation. Use only in well-ventilated areas. Ground/bond container and receiving equipment.	yes
7.2	- Ventilation requirements: Use local and general ventilation.		yes
8.1	Control parameters	Control parameters: This information is not available.	yes
8.2	Respiratory protection: Particulate filter device (EN 143).	Respiratory protection: In case of inadequate ventilation wear respirat- ory protection.	yes
9.2	Solvent content: 9.784 %		yes
9.2	Solid content: 90.22 %		yes
15.1		Cleaning Product Right to Know Act Substance List (CA-RTK): change in the listing (table)	yes
15.1		Toxic or Hazardous Substance List (MA-TURA): change in the listing (table)	yes
15.1	Hazardous Substances List (MN-ERTK)		yes
15.1		Hazardous Substances List (MN-ERTK): change in the listing (table)	yes
15.1		Hazardous Substance List (NJ-RTK): change in the listing (table)	yes
15.1		Hazardous Substance List (Chapter 323) (PA-RTK): change in the listing (table)	yes
15.1		Hazardous Substance List (RI-RTK): change in the listing (table)	yes
15.1		NFPA® 704: change in the listing (table)	yes

United States: en Page: 15 / 17





Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21 Replaces version of: 2020-06-09 (4)

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	
	American Conference of Governmental Industrial Hygienists
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ERG No	Emergency Response Guidebook - Number
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IATA	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")
NFPA®	National Fire Protection Association (United States)
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
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)

United States: en Page: 16 / 17



acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-134a Ester Refrigerant Oil with ICE 32 Performance Enhancer

Version number: 5.0 Revision: 2020-10-21

Replaces version of: 2020-06-09 (4)

Abbr.	Descriptions of used abbreviations
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
H330	Fatal if inhaled.

Disclaimer

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

United States: en Page: 17 / 17