

acc. to 29 CFR 1910.1200 App D

Certified A/C PRO Auto Air Conditioning R-1234yf Rubber Stop Leak **Professional Grade**

Version number: 4.0 Revision: 2020-10-21 Replaces version of: 2020-09-23 (3)

SECTION 1: Identification

Product identifier 1.1

Certified A/C PRO Auto Air Conditioning R-1234yf Trade name

Rubber Stop Leak Professional Grade

Alternative number(s) 048168453399

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**

1-314-985-1511 Int'l: 1-800-526-4727 **Emergency information service**

> 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) not required

- Precautionary statements

P102 Keep out of reach of children.

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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

2.3

Not relevant (mixture)

3.2 **Mixtures**

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Dimethyl adipate	CAS No Trade secret	1-<5	Acute Tox. 4 / H312	<u>(i)</u>

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.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

Indication of any immediate medical attention and special treatment needed 4.3

none

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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

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.

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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

- 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
Dimethyl adipate	Trade secret	DNEL	8.3 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
Dimethyl adipate	Trade secret	DNEL	8.3 mg/m ³	human, inhalatory	worker (industry)	chronic - local ef- fects

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	0.18 ^{mg} / _l	aquatic organisms	water	intermittent re- lease
Dimethyl adipate	Trade secret	PNEC	0.018 ^{mg} / _l	aquatic organisms	freshwater	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	0.002 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
Dimethyl adipate	Trade secret	PNEC	10 ^{mg} / _l	aquatic organisms	sewage treat- ment plant (STP)	short-term (single instance)
Dimethyl adipate	Trade secret	PNEC	0.16 ^{mg} / _{kg}	aquatic organisms	freshwater sedi- ment	short-term (single instance)
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 organ- isms	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

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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	gaseous (non-pressurized)
Color	various
Odor	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	230.9 °C at 1 atm
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	this material is combustible, but will not ignite readily
Explosive limits	not determined
Vapor pressure	2.84 Pa at 21 °C
Density	not determined
Vapor density	not determined
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
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Other information	there is no additional information
Oxidizing properties	none
Explosive properties	none
Viscosity	not relevant (gaseous)
Auto-ignition temperature	not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

9.2

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.

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.

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Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Dimethyl adipate	Trade secret	dermal	1,000 ^{mg} / _{kg}

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.

12.4 Mobility in soil

Data are not available.

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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	2037

14.2 UN proper shipping name Receptacles, small, containing gas

14.3 Transport hazard class(es)

Class 2.1 (gases) (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

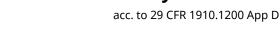
There is no additional information.

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

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

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

Index number 2037

Proper shipping name Receptacles, small, containing gas

- Particulars in the shipper's declaration UN2037, Receptacles, small, containing gas, 2.1

Class 2.1 Danger label(s) 2.1



Special provisions (SP) LTD QTY ERG No 115

International Maritime Dangerous Goods Code (IMDG)

UN number 2037

Proper shipping name RECEPTACLES, SMALL, CONTAINING GAS

- Particulars in the shipper's declaration UN2037, RECEPTACLES, SMALL, CONTAINING GAS,

2.2

Class 2.2
Marine pollutant Danger label(s) 2.2



Special provisions (SP) 191, 277, 303, 344

Excepted quantities (EQ) E0
Limited quantities (LQ) 1 L
EmS F-D, S-U
Stowage category B

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number 2037

Proper shipping name Receptacles, small, containing gas

- Particulars in the shipper's declaration UN2037, Receptacles, small, containing gas, 2.2

Class 2.2 Danger label(s) 2.2

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Special provisions (SP) A98, A167

Excepted quantities (EQ) E0
Limited quantities (LQ) 1 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

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

none of the ingredients are listed

Right to Know Hazardous Substance List

- Toxic or Hazardous Substance List (MA-TURA) none of the ingredients are listed
- Hazardous Substances List (MN-ERTK) none of the ingredients are listed
- Hazardous Substance List (NJ-RTK) none of the ingredients are listed
- Hazardous Substance List (Chapter 323) (PA-RTK) none of the ingredients are listed
- Hazardous Substance List (RI-RTK) none of the ingredients are listed

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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	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	0	material that, under emergency conditions, would offer no hazard beyond that of or- dinary combustible material
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AICS	not all ingredients are listed
CA	DSL	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

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Country	Inventory	Status
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	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 Australian Inventory of Chemical Substances CICR

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

DSL Domestic Substances List (DSL)

EC Substance Inventory (EINECS, ELINCS, NLP) **ECSI**

Inventory of Existing Chemical Substances Produced or Imported in China Inventory of Existing and New Chemical Substances (ISHA-ENCS) **IECSC**

ISHA-ENCS

KECI Korea Existing Chemicals Inventory New Zealand Inventory of Chemicals NZIoC

Philippine Inventory of Chemicals and Chemical Substances (PICCS) **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
5.1	Suitable extinguishing media: Water spray, BC-powder, Carbon dioxide (CO2)	Suitable extinguishing media: Water spray, BC-powder	yes
6.3	Advice on how to clean up a spill: Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diat- omite), sand, universal binder		yes
6.3	Appropriate containment techniques: Use of adsorbent materials.		yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
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
9.1	Physical state: liquid	Physical state: gaseous (non-pressurized)	yes
9.1	Flammability (solid, gas): not relevant, (fluid)	Flammability (solid, gas): this material is combustible, but will not ignite readily	yes
9.1	Vapor density: this information is not available	Vapor density: not determined	yes
9.1	Viscosity: not determined	Viscosity: not relevant (gaseous)	yes
14.7	International Maritime Dangerous Goods Code (IMDG): Not subject to IMDG.	International Maritime Dangerous Goods Code (IMDG)	yes
14.7		UN number: 2037	yes
14.7		Proper shipping name: RECEPTACLES, SMALL, CONTAINING GAS	yes
14.7		Particulars in the shipper's declaration: UN2037, RECEPTACLES, SMALL, CONTAINING GAS, 2.2	yes
14.7		Class: 2.2	yes
14.7		Marine pollutant: -	yes
14.7		Danger label(s): 2.2	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Special provisions (SP): 191, 277, 303, 344	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
14.7		Excepted quantities (EQ): E0	yes
14.7		Limited quantities (LQ): 1 L	yes
14.7		EmS: F-D, S-U	yes
14.7		Stowage category: B	yes
14.7	International Civil Aviation Organization (ICAO- IATA/DGR): Not subject to ICAO-IATA.	International Civil Aviation Organization (ICAO- IATA/DGR)	yes
14.7		UN number: 2037	yes
14.7		Proper shipping name: Receptacles, small, containing gas	yes
14.7		Particulars in the shipper's declaration: UN2037, Receptacles, small, containing gas, 2.2	yes
14.7		Class: 2.2	yes
14.7		Danger label(s): 2.2	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Special provisions (SP): A98, A167	yes
14.7		Excepted quantities (EQ): E0	yes
14.7		Limited quantities (LQ): 1 kg	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate

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Abbr.	Descriptions of used abbreviations
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
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
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
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
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
PNEC	Predicted No-Effect Concentration
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
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).

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List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H312	Harmful in contact with skin.

Disclaimer

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

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