

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Freezer Top R1234ZE

Revision date: 04.12.2017

Product code: 30

Page 1 of 6

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Freezer Top R1234ZE

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.3. Details of the supplier of the safety data sheet**

Company name: ITW LLC & Co. KG
Street: Mühlackerstrasse 149
Place: D-75417 Mühlacker
Telephone: ++49(0)7041-96340 Telefax: ++49(0)7041-963429
e-mail: info@itwcp.de
Internet: www.itwcp.de
Responsible Department: Produktsicherheit

1.4. Emergency telephone

number: ++49(0)7041-96340
Mo. - Do. 8.00 - 16.30 Fr. 8.00 - 14.00

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:
Aerosol: Aerosol 3
Hazard Statements:
Pressurised container: May burst if heated.

2.2. Label elements**Regulation (EC) No. 1272/2008**

Signal word: Warning

Hazard statements

H229 Pressurised container: May burst if heated.

Precautionary statements

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P251 Do not pierce or burn, even after use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity
	EC No Index No REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
29118-24-9	Trans-1,3,3,3-Tetrafluoroprop-1ene	>80 %
	471-480-0 01-0000019758-54	
	Compressed gas; H280	

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures**4.1. Description of first aid measures**

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Freezer Top R1234ZE

Revision date: 04.12.2017

Product code: 30

Page 2 of 6

General information

No special measures are necessary.

After inhalation

Provide fresh air.

After contact with skin

After contact with skin, wash immediately with: Water. Change contaminated clothing.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

If swallowed, immediately drink: Water. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings. Extinguishing powder. Carbon dioxide (CO₂). Foam.

Unsuitable extinguishing media

Water. Water with tenside additive.

5.2. Special hazards arising from the substance or mixture

Heating causes rise in pressure with risk of bursting. In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Co-ordinate fire-fighting measures to the fire surroundings.

Additional information

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Wear personal protection equipment. Remove all sources of ignition.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Ventilate affected area. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Provide adequate ventilation as well as local exhaustion at critical locations. Avoid contact with eyes and skin.

Advice on protection against fire and explosion

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

7.2. Conditions for safe storage, including any incompatibilities

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Freezer Top R1234ZE

Revision date: 04.12.2017

Product code: 30

Page 3 of 6

Requirements for storage rooms and vessels

Keep container tightly closed. Observe in addition any national regulations!

Further information on storage conditions

none

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls



Protective and hygiene measures

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

DIN EN 374 Tested protective gloves are to be worn: Butyl rubber. 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.

Skin protection

Protective clothing:

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	colourless
Odour:	characteristic

Test method

Changes in the physical state

Initial boiling point and boiling range:	-19 °C
Flash point:	No flash point according to standard method.
Sustaining combustion:	Sustaining combustion
Lower explosion limits:	not explosive.
Upper explosion limits:	not explosive.
Ignition temperature:	Non-flammable.
Auto-ignition temperature	
Gas:	288-293 °C
Density:	1,18 g/cm ³
Water solubility:	0,373 g/L

9.2. Other information

SECTION 10: Stability and reactivity

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Freezer Top R1234ZE

Revision date: 04.12.2017

Product code: 30

Page 4 of 6

10.1. Reactivity

Pressurised container: May burst if heated.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition productsCarbon dioxide (CO₂) Carbon monoxide**Further information**

No data available

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Based on available data, the classification criteria are not met.

ATEmix tested

	Dose	Species	Source
LC50, inhalative (vapour) (4 h)	965 mg/l	Rat	

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information**Further information**

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Freezer Top R1234ZE

Revision date: 04.12.2017

Product code: 30

Page 5 of 6

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
Hazard label: 2.2



Classification code: 5A
Special Provisions: 190 327 625
Limited quantity: 1 L
Transport category: 3
Tunnel restriction code: E

Other applicable information (land transport)

E0

Inland waterways transport (ADN)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
Hazard label: 2.2



Classification code: 5A
Special Provisions: 190 327 344 625
Limited quantity: 1 L

Other applicable information (inland waterways transport)

E0

Marine transport (IMDG)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2, see SP63

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Freezer Top R1234ZE

Revision date: 04.12.2017

Product code: 30

Page 6 of 6

Special Provisions: 63, 190, 277, 327, 344, 959
Limited quantity: See SP277
EmS: F-D, S-U

Other applicable information (marine transport)

E0

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2.2
Hazard label: 2.2



Special Provisions: A98 A145 A167
Limited quantity Passenger: 30 kg G
IATA-packing instructions - Passenger: 204
IATA-max. quantity - Passenger: 75 kg
IATA-packing instructions - Cargo: 204
IATA-max. quantity - Cargo: 150 kg

Other applicable information (air transport)

E0

: Y204

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

SECTION 16: Other information**Relevant H and EUH statements (number and full text)**

H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)