

Safety Data Sheet

according to Regulation (EC) No 1907/2006

BOOSTER *R1234ZE *

Revision date: 04.12.2017

Product code: 481711

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

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

Uses advised against

Reserved for industrial and professional use.

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-Tetrafluorprop-1ene | <80% |
| | 471-480-0 | |
| | 01-0000019758-54 | |
| | Compressed gas; H280 | |

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

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

No special measures are necessary.

After inhalation

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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, 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**Extinguishing powder. Carbon dioxide (CO₂). Foam.**Unsuitable extinguishing media**

Water. Water with tenside additive.

5.2. Special hazards arising from the substance or mixture

In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

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

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.

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Further information on handling

The product will be applied by spraying.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

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**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. 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. |
| Ignition temperature: | 288-293 °C |
| Density (at 20 °C): | 1,18 g/cm ³ |
| Water solubility: (at 20 °C) | 0,373 g/L |

SECTION 10: Stability and reactivity

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10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

This material is considered to be non-reactive under normal use conditions.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Etchant and acids, Alkali (lye), concentrated

10.6. Hazardous decomposition productsCarbon dioxide (CO₂), Carbon monoxide, Hydrogen fluoride**SECTION 11: Toxicological information****11.1. Information on toxicological effects****ATEmix tested**

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

SECTION 12: Ecological information**SECTION 13: Disposal considerations****13.1. Waste treatment methods****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 |

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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

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

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: Y204

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No data available

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): -- not water contaminating

15.2. Chemical safety assessment

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

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.)