

**Halon 1211**

Print date: 08.12.2014

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

Halon 1211

**Product code:**

351.252

CAS No:

353-59-3

EC No:

206-537-9

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

halogenated hydrocarbons

**1.3. Details of the supplier of the safety data sheet**

Company name:	TOTAL Feuerschutz GmbH		
Street:	Industriestraße 13		
Place:	D-68526 Ladenburg		
Telephone:	+49 6203 75-0	Telefax:	+49 6203 75-252
e-mail:	total@tycoint.com		
Contact person:	H. Bach	Telephone:	+49 6203 75-213
e-mail:	hbach@tycoint.com		
Internet:	www.total-feuerschutz.de		
Responsible Department:	Abteilung Technik		

**1.4. Emergency telephone number:**Giftnotruf Mainz - 24 Stunden Notdienst  
+49 (0)6131 19240**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Indications of danger: N - Dangerous for the environment

R phrases:

Dangerous for the ozone layer.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Gases under pressure: Liquefied gas

Hazardous for the ozone layer: Ozone 1

Hazard Statements:

Contains gas under pressure; may explode if heated.

Harms public health and the environment by destroying ozone in the upper atmosphere.

**2.2. Label elements**

Signal word:

Warning

Pictograms:

GHS04-GHS07

**Hazard statements**

H280

Contains gas under pressure; may explode if heated.

H420

Harms public health and the environment by destroying ozone in the upper atmosphere.

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**Precautionary statements**

P410+P403 Protect from sunlight. Store in a well-ventilated place.  
P502 Refer to manufacturer/supplier for information on recovery/recycling.

**2.3. Other hazards**

Ozone depletion potential (ODP): 3,0

**SECTION 3: Composition/information on ingredients****3.1. Substances****Hazardous components**

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
206-537-9	Bromochlorodifluoromethane	
353-59-3	N - Dangerous for the environment R59	75 - < 100 %
	Liquefied gas, Ozone 1; H280 H420	

Full text of R-, H- and EUH-phrases: see section 16.

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

Provide fresh air.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

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

Co-ordinate fire-fighting measures to the fire surroundings.

**5.2. Special hazards arising from the substance or mixture**

Non-flammable. Heating causes rise in pressure with risk of bursting.

**5.3. Advice for firefighters**

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

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Provide adequate ventilation. Wear a self-contained breathing apparatus and chemical protective clothing.

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment.

**6.3. Methods and material for containment and cleaning up**

Ventilate affected area.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

No special measures are necessary.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container tightly closed.

**Advice on storage compatibility**

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

**7.3. Specific end use(s)**

halogenated hydrocarbons

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**8.2. Exposure controls**



**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special

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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**

Wear suitable 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:	gaseous
Colour:	colourless
Odour:	characteristic

**Test method**

pH-Value:	not determined
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**Changes in the physical state**

Melting point:	not determined
Initial boiling point and boiling range:	-4 °C
Flash point:	not applicable

**Flammability**

Solid:	not applicable
Gas:	not determined

**Explosive properties**

The product is not: Explosive

Lower explosion limits:	not determined
Upper explosion limits:	not determined

**Auto-ignition temperature**

Solid:	not applicable
Gas:	not determined

Decomposition temperature:	> 480 °C
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**Oxidizing properties**

Not oxidizing.

Vapour pressure: (at 20 °C)	2270 hPa
Vapour pressure: (at 50 °C)	5600 hPa
Density:	1,83 g/cm <sup>3</sup>
Water solubility:	insoluble

**Solubility in other solvents**

not determined

Partition coefficient:	not determined
Vapour density:	5,7
Evaporation rate:	not determined

**9.2. Other information**

Solid content:	0 %
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**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

Decomposition temperature: > 480°C

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

none

**10.5. Incompatible materials**

Metal (Reactivity)

**10.6. Hazardous decomposition products**

Gases/vapours, toxic.

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

Classification of the substance or mixture: none

**Irritation and corrosivity**

Classification of the substance or mixture: none

**Sensitising effects**

Classification of the substance or mixture: none

**STOT-single exposure**

Classification of the substance or mixture: none

**Severe effects after repeated or prolonged exposure**

Classification of the substance or mixture: none

**Carcinogenic/mutagenic/toxic effects for reproduction**

Classification of the substance or mixture: none

**Aspiration hazard**

Classification of the substance or mixture: none

**Additional information on tests**

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

**SECTION 12: Ecological information****12.1. Toxicity**

Dangerous for the ozone layer.

**12.2. Persistence and degradability**

photolysis: > 50 % (Exposure time (days): 5200)

**12.3. Bioaccumulative potential**

The product has not been tested.

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

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**12.6. Other adverse effects**

Ozone depletion potential (ODP): 3,0

**Further information**

Avoid release to the environment.

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

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**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 dangerous substances  
Classified as hazardous waste.

**Waste disposal number of used product**

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

**Waste disposal number of contaminated packaging**

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

**Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number:** UN 1974**14.2. UN proper shipping name:** CHLORODIFLUOROBROMOMETHANE (REFRIGERANT GAS R 12B1)**14.3. Transport hazard class(es):** 2**14.4. Packing group:** -

Hazard label: 2.2



Classification code: 2A

Limited quantity: 120 mL

Transport category: 3

Hazard No: 20

Tunnel restriction code: C/E

**Other applicable information (land transport)**

Excepted quantity: E1

**Inland waterways transport (ADN)****14.1. UN number:** UN 1974**14.2. UN proper shipping name:** CHLORODIFLUOROBROMOMETHANE (REFRIGERANT GAS R 12B1)**14.3. Transport hazard class(es):** 2**14.4. Packing group:** -

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Hazard label: 2.2



Classification code: 2A

Limited quantity: 120 mL

**Other applicable information (inland waterways transport)**

Excepted quantity: E1

**Marine transport (IMDG)**

**14.1. UN number:** UN 1974

**14.2. UN proper shipping name:** CHLORODIFLUOROBROMOMETHANE (REFRIGERANT GAS R 12B1)

**14.3. Transport hazard class(es):** 2.2

**14.4. Packing group:** -

Hazard label: 2.2



Special Provisions: -

Limited quantity: 120 mL

EmS: F-C, S-V

**Other applicable information (marine transport)**

Excepted quantity: E1

**Air transport (ICAO)**

**14.1. UN number:** UN 1974

**14.2. UN proper shipping name:** CHLORODIFLUOROBROMOMETHANE (REFRIGERANT GAS R 12B1)

**14.3. Transport hazard class(es):** 2.2

**14.4. Packing group:** -

Hazard label: 2.2



Limited quantity Passenger: -

IATA-packing instructions - Passenger: 200

IATA-max. quantity - Passenger: 75 kg

IATA-packing instructions - Cargo: 200

IATA-max. quantity - Cargo: 150 kg

**Other applicable information (air transport)**

Excepted quantity: E1

Passenger-LQ: -

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

not applicable

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**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU regulatory information**

1999/13/EC (VOC): 100 %

**Additional information**

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer

Regulation (EC) No. 842/2006 on certain fluorinated greenhouse gases

**National regulatory information**

Employment restrictions: Observe employment restrictions for young people.

Water contaminating class (D): - - not water contaminating

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

**SECTION 16: Other information**

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Relevant R-phrases (Number and full text)**

59 Dangerous for the ozone layer.

**Relevant H- and EUH-phrases (Number and full text)**

H280 Contains gas under pressure; may explode if heated.

H420 Harms public health and the environment by destroying ozone in the upper atmosphere.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.