



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008
This SDS is for generic information purposes and does not reflect required country specific
information for OEL

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supercedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

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

1.1. Product identifier

Product Name	OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Article number	62021
Unique formula identifier (UFI)	FTRH-8573-R007-0PMX

Other means of identification

Pure substance/mixture Mixture

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

Recommended use No information available

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

OPN-CHEMIE GmbH
In der Au 14
57290 Neunkirchen / Germany
www.opn-chemie.de

Further information obtainable from

Barbara Angelika Gros-Petri
E-Mail (competent person) baerbel.petri@opn-chemie.de

1.4. Emergency telephone number

Emergency information service Poison Information Center Freiburg +49(0)761/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aerosols	Category 3 - (H229)
----------	---------------------

2.2. Label elements

Signal word

Warning

Hazard statements

H229 - Pressurised container: May burst if heated.

Precautionary Statements - EU (§28, 1272/2008)

P102 - Keep out of reach of children.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 - Do not pierce or burn, even after use.
P261 - Avoid breathing mist/vapours/spray.
P312 - Call a POISON CENTER / doctor if you feel unwell.

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supersedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501 - Dispose of contents / container in accordance with national regulations of the disposal.

Additional labelling requirements

Buildup of explosive mixtures possible without sufficient ventilation.

2.3. Other hazards

In case of insufficient ventilation and/or through use, the formation of a explosive/highly flammable mixture is possible.

PBT & vPvB

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

The product contains no substances which at their given concentration, are considered to be hazardous to health

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Carbon dioxide 124-38-9	1 - <2.5	[4]	204-696-9	Press. Gas (H281)	-	-	-	-

NOTE [4] - This substance is exempted from registration according to the provisions of Article 2(7)(a) and Annex IV of REACH

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

Acute Toxicity Estimate

No information available

Chemical name	EC No (EU Index No)	CAS No.	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Carbon dioxide	204-696-9	124-38-9	-	-	-	-	-

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air.

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supersedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Clean mouth with water. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Wear personal protective clothing (see section 8).

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

Symptoms	No information available.
Effects of Exposure	No information available.

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

Note to doctors	No information available.
-----------------	---------------------------

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated.
--------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
----------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment as required. See section 8 for more information. Avoid breathing dust/fume/gas/mist/vapours/spray.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
---------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------

6.3. Methods and material for containment and cleaning up

Methods for containment	Keep out of drains, sewers, ditches and waterways.
Methods for cleaning up	Pick up and transfer to properly labelled containers.

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supercedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Avoid breathing dust/fume/gas/mist/vapours/spray. Use personal protection equipment. Ensure adequate ventilation. Do not puncture or incinerate cans. Contents under pressure.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Keep in properly labelled containers. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep/store only in original container. Store in a dry place. Store in a closed container. Store in accordance with the particular national regulations.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

Chemical name	European Union
Carbon dioxide 124-38-9	TWA: 5000 ppm; TWA: 9000 mg/m ³ ;

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection Wear suitable gloves. Glove thickness > 0.7mm. Butyl rubber. Nitrile rubber. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supercedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

Skin and body protection	to standard EN 374 Wear appropriate personal protective clothing to prevent skin contact.
Respiratory protection	Ensure adequate respiratory protection during spray applications. In case of insufficient ventilation, wear suitable respiratory equipment.
Recommended filter type:	Organic gases and vapours filter conforming to EN 14387. Wear a respirator conforming to EN 140 with Type A filter or better.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Aerosol
Colour	No information available
Odour	No information available.

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	.	Not applicable, Aerosol
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	Not applicable, Aerosol
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	Not applicable. Insoluble in water.
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	
Water solubility	Insoluble in water.	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

Solid content (%)	No information available
VOC content	No data available

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supersedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Incompatible materials Incompatible with oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Stable under recommended storage conditions.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral) >2000 mg/kg

ATEmix (dermal) >2000 mg/kg

ATEmix (inhalation-gas) >20000 ppm

ATEmix (inhalation-dust/mist) >5 mg/l

ATEmix (inhalation-vapour) >20 mg/l

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supersedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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

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

Reproductive toxicity 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.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supersedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

Bioaccumulation There is no data for this product.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment Based on available data, the classification criteria are not met.

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

European Waste Catalogue 16 05 04* gases in pressure containers (including halons) containing dangerous substances
15 01 04 metallic packaging

Other information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number UN1950
14.2 UN proper shipping name Aerosols
14.3 Transport hazard class(es) 2
Labels 2.2
14.4 Packing group Not regulated
Description UN1950, Aerosols, 2, (E)
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions 327, 625, 344, 190
Classification code 5A
Tunnel restriction code (E)
Limited quantity (LQ) 1 L

IMDG

14.1 UN number or ID number UN1950
14.2 UN proper shipping name Aerosols
14.3 Transport hazard class(es) 2.2
14.4 Packing group Not regulated

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supersedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

Description UN1950, Aerosols, 2.2
14.5 Marine pollutant NP
14.6 Special precautions for user
Special Provisions 63,190, 277, 327, 344, 381, 959
Limited Quantity (LQ) See SP277
EmS-No. F-D, S-U
14.7 Maritime transport in bulk
according to IMO instruments
Transport in bulk according to Annex II of MARPOL and the IBC Code Not applicable

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number UN1950
14.2 UN proper shipping name Aerosols, non-flammable
14.3 Transport hazard class(es) 2.2
14.4 Packing group Not regulated
Description UN1950, Aerosols, non-flammable, 2.2
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions A145, A167, A98, A802
Limited quantity (LQ) 30 kg G
ERG Code 2L

SECTION 15: Regulatory information

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

European Union

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Substance subject to authorisation per REACH Annex XIV

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Export Notification requirements

This product does not contain substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals above the level that triggers a labeling obligation under Regulation (EC) No 1272/2008. Therefore this product is not subject to prior informed consent notification.

Ozone-depleting substances (ODS) regulation (EC) 2024/590

Not applicable

Persistent Organic Pollutants

Not applicable

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supersedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors

Not applicable

National regulations

France

Chemical name	French RG number
Carbon dioxide 124-38-9	RG 5, RG 14, RG 15, RG 15bis, RG 20bis

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV

No flammable liquids in accordance with BetrSichV

Water hazard class (WGK) non-hazardous to water (nwg)

TRGS - 510 Storage Class Storage Class 2B : Aerosols

Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)

Not Listed

Denmark

Registration number(s) (P-no.) No information available

Norway

Registration number(s) (PRN-no.) No information available

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

H281 - Contains refrigerated gas; may cause cryogenic burns or injury

SVHC: Substances of Very High Concern for Authorisation:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT RE: Specific target organ toxicity - Repeated exposure

STOT SE: Specific target organ toxicity - Single exposure

EWC: European Waste Catalogue

LOW: List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IATA: International Air Transport Association

ICAO: ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG: International Maritime Dangerous Goods

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

Legend SECTION 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

AGW Occupational exposure limit value

BGW

Biological limit value

Ceiling Maximum limit value

Sk*

Skin designation

SAFETY DATA SHEET

OPN-Leak Detector DIN - DVGW-Reg.-No.: NG-5170AO0758
Supersedes date 28.08.2025

Revision date 28.08.2025
Revision Number 1.01

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable aerosol	On basis of test data

Key literature references and sources for data used to compile the SDS

European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
NIOSH (National Institute for Occupational Safety and Health)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set

Prepared By Product Safety & Regulatory Affairs

Revision date 28.08.2025

Revision Note SDS sections updated 1

Training Advice No information available

Further information No information available

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet