



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.07.2015

Revision: 15.07.2015

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

1.1 Product identifier

Trade name: 541390 Spraymarker grün

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

No further relevant information available.

Application of the substance / the preparation: Auxiliary for dental technology

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Firmenbezeichnung
Amann Girrbach AG
Herrschaftswiesen 1
A-6842 Koblach
Telefon: 0043 5523 623330
Fax: 0043 5523 55990
Email: austria@amanngirrbach.com
Internet: www.amanngirrbach.com

Inverkehrbringer
Amann Girrbach GmbH
Duerrenweg 40
D-75177 Pforzheim
Telefon: 0049 7231 957100
Fax: 0049 7231 957129
Email: germany@amanngirrbach.com
Internet: www.amanngirrbach.com

Further information obtainable from: Amann Girrbach GmbH

1.4 Emergency telephone number:

+49 (0) 7231 957100 (während der Geschäftszeiten / during business hours).

2 Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS02

Signal word: Danger

Hazard statements:

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

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- P102 Keep out of reach of children.
P103 Read label before use.
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.
P211 Do not spray on an open flame or other ignition source.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Additional information:

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

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.

2.3 Other hazards:**Results of PBT and vPvB assessment:**

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 75-28-5	isobutane	50-100%
EINECS: 200-857-2	Flam. Gas 1, H220; Press. Gas C, H280	

Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

4.1 Description of first aid measures:**General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

Generally the product does not irritate the skin.

In cases of frost bites, rinse with plenty of water. Do not remove clothing.

After eye contact:

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

After swallowing: Call a doctor immediately.

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

No further relevant information available.

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

No further relevant information available.

5 Firefighting measures

5.1 Extinguishing media:**Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture: Can form explosive gas-air mixtures.

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5.3 Advice for firefighters:**Protective equipment:** Do not inhale explosion gases or combustion gases.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

6.2 Environmental precautions: Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:** Ensure adequate ventilation.**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

7.1 Precautions for safe handling:

Open and handle receptacle with care.

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Do not spray onto a naked flame or any incandescent material.

Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities:**Storage:****Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

Store only in the original receptacle.

Information about storage in one common storage facility: Store away from foodstuffs.**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

7.3 Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.2 Exposure controls:**Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Do not inhale gases / fumes / aerosols.

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Avoid contact with the eyes and skin.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.**Protection of hands:** Protective gloves**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Butyl rubber, BR

Natural rubber, NR

Eye protection: Tightly sealed goggles

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:**General Information:****Appearance:**

Form:	Aerosol
Colour:	Different according to colouring
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.

Change in condition:

Melting point/Melting range:	-159.4 °C
Boiling point/Boiling range:	-44 °C

Flash point: Not applicable, as aerosol.**Flammability (solid, gaseous):** Not applicable.**Ignition temperature:** 460 °C**Decomposition temperature:** Not determined.**Self-igniting:** Product is not selfigniting.**Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.**Explosion limits:**

Lower:	1.8 Vol %
Upper:	8.5 Vol %

Vapour pressure at 20 °C: 3000 hPa**Density at 20 °C:** 0.6 g/cm³**Relative density:** Not determined.**Vapour density:** Not determined.**Evaporation rate:** Not applicable.**Solubility in / Miscibility with water at 20 °C:**

0.049 g/l

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Partition coefficient (n-octanol/water): Not determined.**Viscosity:****Dynamic:** Not determined.
Kinematic: Not determined.**Solvent content:****Organic solvents:** 0.0 %
VOC (EC) 98 %**9.2 Other information:** No further relevant information available.

10 Stability and reactivity

10.1 Reactivity: No further relevant information available.**10.2 Chemical stability:****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: Forms explosive gas mixture with air.**10.4 Conditions to avoid:** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** Flammable gases/vapours

11 Toxicological information

11.1 Information on toxicological effects:**Acute toxicity****Primary irritant effect:****Skin corrosion/irritation** No irritant effect.**Serious eye damage/irritation** Irritating effect.**Respiratory or skin sensitisation** No sensitising effects known.

12 Ecological information

12.1 Toxicity:**Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:** Generally not hazardous for water**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.

13 Disposal considerations

13.1 Waste treatment methods:**Recommendation:**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue:

Dispose of contents/container in accordance with local/regional/national/international regulations.

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Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.

14 Transport information

14.1 UN-Number:

ADR, IMDG, IATA

UN1950

14.2 UN proper shipping name:

ADR

1950 AEROSOLS

IMDG, IATA

AEROSOLS

14.3 Transport hazard class(es):

ADR

**Class:**

2 5F Gases.

Label:

2.1

IMDG, IATA

**Class:**

2 Gases.

Label:

2.1

14.4 Packing group:

-

14.5 Environmental hazards:**Marine pollutant:**

No

14.6 Special precautions for user:

Warning: Gases.

EMS Number:

F-D,S-U

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

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ):

1L

UN "Model Regulation":

UN1950, AEROSOLS, 2.1

15 Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.**Seveso category** P3a FLAMMABLE AEROSOLS**Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

Department issuing MSDS:

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D-42113 Wuppertal

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Contact: Dr. Axel Deeg**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 Harmonised 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 (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas