



Hahnemühle

SAFETY DATA SHEET

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

Revision date: 3/13/2017

1

Version:

Language: en-US

Date of print: 4/21/2017

Hahnemühle Protective Spray

Material number HM - HM01

Page: 1 of 11

1. Product and company identification**Product identifier**

Trade name: Hahnemühle Protective Spray

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

General use: protecting agent

Details of the supplier of the safety data sheet

Company name: Hahnemühle FineArt GmbH

Street/POB-No.: Hahnestr. 5

Postal Code, city: 37586 Dassel

Germany

WWW: www.hahnemuehle.com

E-mail: tfa@hahnemuehle.com

Telephone: +49 (0)55 61 791-235

Telefax: +49 (0)55 61 791-340

Dept. responsible for information:

Sales and Marketing

Telephone: +49 (0) 5561-791-237

Telefax: +49 (0) 5561-791-377

E-mail: dfa@hahnemuehle.com

Emergency phone number**GIZ-Nord, Göttingen, Germany,
Telephone: +49 551-19240****2. Hazards identification****Emergency overview**

Appearance: Physical state at 68 °F and 101.3 kPa: liquid

Form: Aerosol

Color: colorless

Odor: characteristic

Classification: Flammable Aerosol - Category 1; Compressed Gas; Sensitization - skin - Category 1;

Hazard symbols:



Signal word:

Hazard statements:

Danger

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

May cause an allergic skin reaction.



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Precautionary statements:

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Do not spray on an open flame or other ignition source.
- Do not pierce or burn, even after use.
- Avoid breathing spray.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF ON SKIN: Wash with plenty of water/soap.
- Specific treatment (see 'First aid' on this label).
- If skin irritation or rash occurs: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.
- Wash contaminated clothing before reuse.
- Protect from sunlight. Store in a well-ventilated place.
- Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- Dispose of contents/container to hazardous or special waste collection point.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

Hazards not otherwise classified

Potentially explosive mixtures may form if adequate ventilation is not provided.
Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Solvent mixture, polymer-resin



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Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 64-17-5	Ethanol	50 - 70 %	Flammable Liquid - Category 2.
CAS 123-86-4	n-Butyl acetate	1 - 10 %	Flammable Liquid - Category 3. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 123-42-2	4-Hydroxy-4-methylpentan-2-one A mixture of alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- omega-hydroxypoly(oxyethylene) and alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- omega-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyloxypoly(oxyethylene)	< 10 % < 0.5 %	Flammable Liquid - Category 3. Eye Irritation - Category 2A. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 115-10-6	Dimethyl ether	20 - 30 %	Flammable Gas - Category 1. Compressed Gas.

4. First aid measures

General information: First aider: Pay attention to self-protection!
If you feel unwell, seek medical advice (show the label where possible).

In case of inhalation: Provide fresh air.
Seek medical treatment in case of troubles.

Following skin contact: Remove residues with soap and water.
In case of skin irritation, consult a physician.
Take off contaminated clothing and wash it before reuse.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.

After swallowing: Rinse mouth and seek medical attention immediately.

Most important symptoms/effects, acute and delayed

Inhaling can lead to irritations of the respiratory tract and mucous membrane.
May cause an allergic skin reaction.
Higher doses may lead to a narcotic effect.

Information to physician

Treat symptomatically.



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5. Fire fighting measures

Flash point/flash point range:

-41.8 °F

Auto-ignition temperature: No data available

Suitable extinguishing media:

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

Extinguishing media which must not be used for safety reasons:

Full water jet

Specific hazards arising from the chemical

Extremely flammable aerosol. Contains gas under pressure; may explode if heated.

In case of fire may be liberated: carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information: Heating will lead to pressure increase: Danger of bursting and explosion. Cool exposed containers with water spray.

Move undamaged containers from immediate hazard area if it can be done safely.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not allow fire water to penetrate into surface or ground water.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6. Accidental release measures

Personal precautions:

Do not breathe spray.

Avoid contact with the substance.

Eliminate all ignition sources if safe to do so.

Provide adequate ventilation.

Wear appropriate protective equipment.

Keep unprotected people away.

Cordon off downwind area at risk and warn inhabitants.

Take off contaminated clothing and wash it before reuse.

Environmental precautions:

Do not allow to enter into ground-water, surface water or drains. Danger of explosion.

In case of release, notify competent authorities.

Methods for clean-up:

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Thoroughly clean surrounding area.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

Never return spills in original containers for re-use.

Collect spilled material using paper towels and dispose.

Additional information:

Use explosion-proof equipment and non-sparking tools/utensils.



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7. Handling and storage**Handling**

Advises on safe handling: Provide adequate ventilation, and local exhaust as needed.

Do not breathe spray.

Do not get in eyes, on skin, or on clothing.

Wear appropriate protective equipment.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.

Precautions against fire and explosion:

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

Do not pierce or burn, even after use.

Do not spray on an open flame or other ignition source.

Storage

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place.

Keep container dry.

Keep only in the original container.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Store containers in upright position. Protect from frost.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection**Exposure guidelines**

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
64-17-5	Ethanol	USA: ACGIH: STEL USA: NIOSH: TWA USA: OSHA: TWA	1000 ppm (A3) 1900 mg/m ³ ; 1000 ppm 1900 mg/m ³ ; 1000 ppm
123-86-4	n-Butyl acetate	USA: NIOSH: STEL USA: NIOSH: TWA USA: OSHA: TWA	950 mg/m ³ ; 200 ppm 710 mg/m ³ ; 150 ppm 710 mg/m ³ ; 150 ppm
123-42-2	4-Hydroxy-4-methylpentan-2-one	USA: ACGIH: TWA USA: NIOSH: TWA USA: OSHA: TWA	238 mg/m ³ ; 50 ppm 240 mg/m ³ ; 50 ppm 240 mg/m ³ ; 50 ppm

Engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

See also information in chapter 7, section storage.



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Personal protection equipment (PPE)

Eye/face protection Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection Flame retardant, antistatic and chemical resistant protective clothing.
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: Nitrile rubber - Layer thickness 0.11 mm
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

General hygiene considerations:

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Do not pierce or burn, even after use.
- Do not spray on an open flame or other ignition source.
- Use only non-sparking tools.
- Do not breathe spray.
- Do not get in eyes, on skin, or on clothing.
- Take off contaminated clothing and wash it before reuse.
- Do not eat, drink or smoke when using this product.
- Wash hands thoroughly after handling.
- When handling large quantities, supply emergency spray.

Environmental exposure controls

Do not allow to enter into ground-water, surface water or drains.

9. Physical and chemical properties**Information on basic physical and chemical properties**

Appearance:	Physical state at 68 °F and 101.3 kPa: liquid
	Form: Aerosol
	Color: colorless
Odor:	characteristic
Odor threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	-41.8 °F
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	LEL (Lower Explosion Limit): 3.00 Vol-% UEL (Upper Explosive Limit): 18.60 Vol-%
Vapor pressure:	at 68 °F: 3500 hPa
Vapor density:	No data available
Density:	at 68 °F: 0.77 g/mL
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available



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Auto-ignition temperature:

No data available

Thermal decomposition:

No data available

Explosive properties:

Vapors may form explosive mixtures with air.

Contains gas under pressure; may explode if heated.

Ignition temperature:

455 °F

10. Stability and reactivity

Reactivity: Extremely flammable aerosol.
 Vapors may form explosive mixtures with air.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions
 Contains gas under pressure; may explode if heated.

Conditions to avoid: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Do not pierce or burn, even after use.
 Do not spray on an open flame or other ignition source.
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Protect from frost.

Incompatible materials: No data available

Hazardous decomposition products:
 carbon monoxide and carbon dioxide.

Thermal decomposition: No data available

11. Toxicological information**Toxicological tests**

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.
 Acute toxicity (oral): Lack of data.
 Acute toxicity (dermal): Lack of data.
 Acute toxicity (inhalative): Lack of data.
 Skin corrosion/irritation: Lack of data.
 Eye damage/irritation: Lack of data.
 Sensitisation to the respiratory tract: Lack of data.
 Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.
 Germ cell mutagenicity/Genotoxicity: Lack of data.
 Carcinogenicity: Lack of data.
 Reproductive toxicity: Lack of data.
 Effects on or via lactation: Lack of data.
 Specific target organ toxicity (single exposure): Lack of data.
 Specific target organ toxicity (repeated exposure): Lack of data.
 Aspiration hazard: Lack of data.



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12. Ecological information**Ecotoxicity**

Further details: Product is partially biodegradable.

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

Volatile organic compounds (VOC):

93.5 % by weight = 72 g/L

General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations**Product**

Recommendation: Do not pierce or burn, even after use.

Special waste.

Dispose of waste according to applicable legislation.

Do not dispose of with household waste.

Contaminated packaging

Recommendation: Empty carefully and completely, if possible.

Handle empty containers with care. Incineration may cause explosion.

14. Transport information**USA: Department of Transportation (DOT)**

Identification number: UN1950

Proper shipping name: UN 1950, AEROSOLS

Hazard class or Division: 2.1

Labels: 2.1

Special provisions: N82

Packaging – Exceptions: 306

Packaging – Non-bulk: None

Packaging – Bulk: None

Quantity limitations – Passenger aircraft / rail: 75 kg

Quantity limitations – Cargo only: 150 kg

Vessel stowage – Location: A

Vessel stowage – Other: 25, 87, 126



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Sea transport (IMDG)

UN number:	UN 1950
Proper shipping name:	UN 1950, AEROSOLS
Class or division, Subsidiary risk:	Class 2, Subrisk-, see SP63
Packing Group:	-
EmS:	F-D, S-U
Special provisions:	63, 190, 277, 327, 344, 381, 959
Limited quantities:	See SP277
Excepted quantities:	E0
Contaminated packaging - Instructions:	P207, LP200
Contaminated packaging - Provisions:	PP87, L2
IBC - Instructions:	-
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	-
Tank instructions - Provisions:	-
Stowage and handling:	SW1 SW22
Segregation:	SG69
Properties and observations:	-
Marine pollutant:	no
Segregation group:	none

Air transport (IATA)

UN/ID number:	UN 1950
Proper shipping name:	UN 1950, AEROSOLS, flammable
Class or division, Subsidiary risk:	Class 2.1
Hazard label:	Flamm. gas
Excepted Quantity Code:	E0
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y203 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft:	Pack.Instr. 203 - Max. Net Qty/Pkg. 75 kg
Cargo Aircraft only:	Pack.Instr. 203 - Max. Net Qty/Pkg. 150 kg
Special provisions:	A145 A167 A802
Emergency Response Guide-Code (ERG):	10L



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15. Regulatory information**National regulations - U.S. Federal Regulations**

Product: TSCA Inventory: not listed

Ethanol: TSCA: listed

NIOSH Recommendations: Occupational Health Guideline: 0262

n-Butyl acetate: Clean Water Act: Hazardous Substances: RQ 5000 lbs.
Other Environmental Laws: CERCLA: RQ 5000 lbs.
NIOSH Recommendations: Occupational Health Guideline: 0072

4-Hydroxy-4-methylpentan-2-one: TSCA: listed - Flags: T

Dimethyl ether: TSCA listed
Clean Air Act: Accidental Release Prevention: Threshold 10000 lbs. / Basis for listing = f
SOCMI Chemical: yes

National regulations - U.S. State Regulations

Ethanol: California Proposition 65 code: -
Idaho Air Pollutant List:
Title 585: AAC: 94 - EL: 125 - OEL: 1880 - Title 586: -
Massachusetts Haz. Substance codes: 2,4,5,6 *T1*
Minnesota Haz. Substance:
Codes: AO - Ratings: 7.74
Pennsylvania Haz. Substance code: -
Washington Air Contaminant:
TWA: 1000 ppm - 1900 mg

n-Butyl acetate: CAS# 123-86-4 can be found on the following state right to know lists:
- California, Massachusetts, Minnesota, New Jersey, Pennsylvania.

4-Hydroxy-4-methylpentan-2-one: Idaho Air Pollutant List:
Title 585: AAC: 12 - EL: 16 - OEL: 240 - Title 586: -
Massachusetts Haz. Substance codes: 2,4
Minnesota Haz. Substance:
Codes: ANO - Ratings: -
Pennsylvania Haz. Substance code: -
Washington Air Contaminant:
TWA: 50 ppm - 240 mg



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Dimethyl ether:

California Proposition 65 code: -

Delaware Air Quality Management List:

DRQ: F 1000** - RQ State: State requirements differs from Federal

Massachusetts Haz. Substance codes: 5,6

Minnesota Haz. Substance:

Codes: I - Ratings: -- - Status: Title III.

New Jersey Extraordinarily Hazardous Substances:

EPA Threshold: 10000

NJ Threshold / Group: --

NJ Table: I Part C - NJ Basis: Not on List

New Jersey RTK Hazardous Substance:

DOT: 1033 - Sub No.: 0758 - TPQ: -

Pennsylvania Haz. Substance code: -

National regulations - Great Britain

Hazchem-Code: -

16. Other information

Text for labeling:

Contains 50 - 70 % Ethanol, 1 - 10 % n-Butyl acetate, < 10 % 4-Hydroxy-4-methylpentan-2-one, < 0.5 % A mixture of alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-omega-hydroxypoly (oxyethylene) and alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-omega-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene), 20 - 30 % Dimethyl ether. Safety data sheet available on request.

Hazard rating systems:

NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 4 (Severe)

Reactivity: 2 (Moderate)



HMIS Version III Rating:

Health: 2 (Moderate)

Flammability: 4 (Severe)

Physical Hazard: 3 (Serious)

Personal Protection: C

HEALTH		2
FLAMMABILITY		4
PHYSICAL HAZARD		3

C

JT Baker Storage Color Code: Red (Flammable Hazard)

Date of first version: 3/13/2017

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.