Safety data sheet

in accordance with Regulation (EC) No. 1907/2006 (REACH),
amended by 2020/878/EU

Stainless steel protection spray
Date created: 4 September 2015

Revised on: 22 October 2025
Version number: 6.0

SECTION 1: Identification of the substance or mixture and of the company

1.1 Product identifier

Trade name: **Stainless steel protection spray**

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

Relevant identified uses	Industrial use Commercial use
Area of application	Protection spray for all metallic surfaces
Uses that are not recommended	Do not use on products intended to come into contact with food.

1.3 Details of the supplier providing the safety data sheet

BYMAT GmbH
Neusser Straße 106
D-41363 Jüchen
info@bymat.de
+49 (0) 2165 8728-0

Competent person responsible for the safety data sheet:	Björn Byhahn
Email (qualified person)	info@bymat.de

1.4 Emergency number

+49 (0) 2165 8728-0

SECTION 2: Potential hazards

2.1 Classification of the substance or mixture

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

section	hazard class	hazard class and category	hazard warning
2.3	aerosols	aerosol 1	H222,H229

Comments

Full text of abbreviations in SECTION 16

2.2 Marking elements

Labelling in accordance with Regulation (EC) No 1272/2008 (CLP)

Signal word: danger

Pictograms

GHS02

Hazard warnings

H222	Extremely flammable aerosol.
H229	Container is pressurised: may burst if heated.

Safety instructions

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray towards open flames or other sources of ignition.
P251	Do not pierce or burn, even after use.
P261	Avoid inhaling aerosols.
P271	Use only outdoors or in well-ventilated areas.
P312	If you feel unwell, call the POISON INFORMATION CENTRE/doctor.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501	Dispose of contents/container in accordance with national regulations.

2.3 Other hazards

Results of the PBT and vPvB assessment

This mixture does not contain any substances that are assessed as PBT or vPvB substances.

Endocrine-disrupting properties

Does not contain any endocrine disruptors (ED) in a concentration of ≥ 0.1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

Description of the mixture Mixture of the substances listed below with non-hazardous admixtures

substance name	identifier	Gew.-%	Classification according to GHS	Piktogramme
Paraffinum Perliquidum	CAS No. 8042-47-5 EC No. 232-455-8 REACH Reg. No. 01-2119487078-27-xxxx	50 – < 75	Asp. Tox. 1 / H304	
Butan	CAS No. 106-97-8 EC No. 203-448-7 REACH Reg. No. 01-2119474691-32-xxxx	10 – < 25	Flam. Gas 1A / H220 Press. Gas L / H280	
Propane	CAS No. 74-98-6 EC No. 200-827-9 REACH Reg. No. 01-2119486944-21-xxxx	5 – < 10	Flam. Gas 1A / H220 Press. Gas C / H280	

substance name	Specific concentration limits	M factors	ATE	route of exposure
Paraffinum Perliquidum	-	-	>5 mg/l/4h	Inhalation: Dust/mist

3.3 Comments

Full text of abbreviations in SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General comments

Do not leave affected persons unattended. Remove accident victims from the danger zone. Keep affected persons calm, cover them and keep them warm. Remove contaminated, soaked clothing immediately. If symptoms occur or in cases of doubt, seek medical advice. If unconscious, place in the recovery position and do not administer anything by mouth.

After inhalation

In case of irregular breathing or respiratory arrest, seek medical assistance immediately and initiate first aid measures. Provide fresh air.

After contact with skin

Wash with plenty of soap and water.

After contact with the eyes

Remove contact lenses, if present and possible. Continue rinsing. Keep eyelids open and rinse thoroughly with clean, running water for at least 10 minutes.

After ingestion

Rinse mouth with water (only if the casualty is conscious). Do NOT induce vomiting.

4.2 Most important acute and delayed symptoms and effects

No symptoms or effects are known to date.

4.3 Indications for immediate medical attention or special treatment

None

SECTION 5: Firefighting measures

5.1 Extinguishing agent

Suitable extinguishing agents

Spray water. BC powder.

Unsuitable extinguishing agents

Water in a full jet.

5.2 Special hazards arising from the substance or mixture

Insufficient ventilation and/or use may result in the formation of explosive/highly flammable vapour/air mixtures.

Hazardous combustion products

Carbon monoxide (CO). Carbon dioxide (CO2).

5.3 Firefighting instructions

Do not inhale explosion and fire gases. Adapt extinguishing measures to the surroundings. Do not allow extinguishing water to enter drains and waterways. Collect contaminated extinguishing water separately. Fight fire with standard precautions from a safe distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personnel not trained for emergencies

Get people to safety.

Emergency services

Respiratory protection must be worn when exposed to vapours, dust, aerosols and gases.

6.2 Environmental protection measures

Prevent penetration into the sewage system or into surface water and groundwater. Retain and dispose of contaminated washing water.

6.3 Methods and materials for retention and cleaning

Tips on how to prevent spilled materials from spreading

Covering the sewers.

Further information on spillage and release

Dispose of in suitable containers. Ventilate the affected area.

6.4 Reference to other sections

Hazardous combustion products: see Section 5 Personal protective equipment: see Section 8. Incompatible materials: see Section 10. Disposal information: see Section 13.

SECTION 7: Handling and storage

7.1 Protective measures for safe handling

Recommendations

Measures to prevent fires and the formation of aerosols and dust

Use local and general ventilation. Take measures against electrostatic discharges. Use only in well-ventilated areas. Ground the container and the equipment to be filled.

Information on general hygiene in the workplace

Wash hands after use. Do not eat, drink or smoke in areas where work is being carried out. Remove contaminated clothing and protective equipment before entering areas where food is consumed. Do not store food and beverages together with chemicals. Do not use containers that are normally intended for food storage for chemicals. Keep away from food, beverages and animal feed.

7.2 Conditions for safe storage, taking into account incompatibilities

Encountering risks of the following nature

Stroage class (STC)

2 B

• Hazards due to flammability

Do not spray towards open flames or other sources of ignition. Protect from sunlight.

Consideration of other information

• Suitable packaging

Only approved packaging (e.g. in accordance with ADR) may be used.

7.3 Specific end uses

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Parameters to be monitored

National limit values

Occupational exposure limits (workplace limits)								
land	**substance**	**CAS No.**	**identifier**	**TVA [ppm]**	**TVA [mg/m³]**	**STV [ppm]**	**STV [mg/m³]**	**source**
DE	Butan	106-97-8	OEL	1.000	2.400	4.000	9.600	TRGS 900
DE	Propane	74-98-6	OEL	1.000	1.800	4.000	7.200	TRGS 900
DE	White mineral oil (petroleum)	8042-47-5	OEL		5		20	TRGS 900
DE	White oil, pharmaceutical	8042-47-5	MAK		5		20	DFG

Note

STV Short-term value (limit value for short-term exposure): Limit value that should not be exceeded, based on a duration of 15 minutes (unless otherwise specified)

TVA Time-weighted average (limit value for long-term exposure): Time-weighted average, measured or calculated for a reference period of eight hours (unless otherwise specified)

Relevant DNEL/DMEL/PNEC and other threshold values

Relevant DNELs of mixture constituents

Relevant DNELs of constituents						
substance name	**CAS No.**	**end point**	**threshold value**	**Protection goal, exposure pathway**	**Use in**	**exposure time**
Paraffinum Perliquidum	8042-47-5	DNEL	164,6 mg/m³	Human, inhalation	Employees (industry)	Chronic - systemic effects
Paraffinum Perliquidum	8042-47-5	DNEL	217,1 mg/kg KG/day	Human, dermal	Employees (industry)	Chronic - systemic effects

8.2 Exposure limits and monitoring

Suitable technical control devices

General ventilation.

Individual protective measures (personal protective equipment)

Eye/face protection

Do not spray into eyes. If necessary, wear tightly fitting goggles.

Skin protection

Hand guard

Wear suitable protective gloves. Chemical protection gloves tested in accordance with EN 374 are suitable.

Type of material

NR: Natural rubber, latex.

Other protective measures

Allow the skin to recover during rest periods. Preventive skin protection (protective creams/ointments) is recommended. Wash hands thoroughly after use.

Respiratory protection

Work outdoors or in well-ventilated areas if possible. Wear respiratory protection if ventilation is inadequate. Type: A-P2 (combination filter for particles and organic gases and vapours, identification colour: brown/white).

Limiting and monitoring environmental exposure

Use suitable containers to prevent contamination of the environment. Prevent penetration into the sewage system or into surface water and groundwater.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of matter	Aerosol (spray aerosol)
Colour	Colourless

Odour	Odourless
Melting point/freezing point	Not applicable, as it is an aerosol.
Boiling point and boiling range	Not applicable, as it is an aerosol.
Flammability (solid, gaseous)	Flammable aerosol according to GHS criteria
Explosion limits	5 Vol.-% - 15 Vol.-%
Flash point	Not applicable, as it is an aerosol. *
Auto-ignition temperature	Not applicable, as it is an aerosol.
Decomposition temperature	Not relevant
Viscosity	Not relevant (aerosol)
Water solubility	Insoluble
Distribution coefficient	
Distribution coefficient n-octanol/water (log value)	Not relevant (mixture)
Vapour pressure	3.8 bar at 20 °C 6.8 bar at 50 °C
Density	0,74 $^{g}/_{ml}$ at 20 °C (Calculated value)
Particle properties	Nicht anwendbar, da Aerosol. *

9.2 Other information

* The finished mixture in the pressurised gas container is only created after the pressurised gas has been added. Some specifications are therefore not measurable in a hermetically sealed, pressurised container.

SECTION 10: Stability and reactivity

10.1 Reactivity

Regarding incompatibilities: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of inflammation.

10.2 Chemical stability

See below "Conditions to be avoided".

10.3 Possibility of dangerous reactions

No dangerous reactions are known.

10.4 Conditions to be avoided

Do not spray onto open flames or other sources of ignition. Protect from heat.

Information on how to prevent fires or explosions

Protect from sunlight.

Physical stress factors that can lead to a dangerous situation and should therefore be avoided

High temperatures.

10.5 Incompatible materials

Oxidising agent.

10.6 Hazardous decomposition products

No reasonably foreseeable hazardous decomposition products are known to arise during use, storage, spillage or heating. Hazardous combustion products: see Section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes within the meaning of Regulation (EC) No 1272/2008

No test data is available for the complete mixture.

Classification procedure

The procedure for classifying the mixture is based on the mixture components (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Not classified as acutely toxic.

Estimated acute toxicity (ATE) of components			
substance name	**CAS No.**	**route of exposure**	**ATE**
Paraffinum Perliquidum	8042-47-5	Inhalation: Dust/mist	>5 $^{mg}/_{l}$/4h

Corrosive/irritant effect on the skin

Not classified as corrosive/irritating to skin.

Serious eye damage/eye irritation

Not classified as seriously damaging to the eyes or irritating to the eyes.

Sensitisation of the respiratory tract or skin

Not classified as an inhalation or skin allergen.

Germ cell mutagenicity

Not to be classified as germ cell mutagenic (mutagenic).

Carcinogenicity

Not classified as carcinogenic.

Reproductive toxicity

Not classified as toxic to reproduction.

• Specific target organ toxicity following single exposure

Not classified as specifically toxic to target organs (single exposure).

• Specific target organ toxicity following repeated exposure

Not classified as specific target organ toxic (repeated exposure).

Aspiration hazard

Not classified as hazardous if aspirated.

11.2 Information on other hazards

No additional information is available.

SECTION 12: Environmental information

12.1 Toxicity

Ordinance on Installations for Handling Substances Hazardous to Water (AwSV): WGK (Germany) 1, slightly hazardous to water

12.2 Persistence and degradability

Biodegradability

The relevant substances in the mixture are readily biodegradable.

12.3 Bioaccumulation potential

No data is available.

12.4 Mobility in the ground

No data is available.

12.5 Results of the PBT and vPvB assessment

Does not contain any PBT/vPvB substances in a concentration of ≥ 0.1%.

12.6 Endocrine-disrupting properties

Does not contain any endocrine disruptors (ED) in a concentration of ≥ 0.1%.

12.7 Other harmful effects

No data is available.

SECTION 13: Disposal considerations

13.1 Waste treatment process

Information relevant to disposal via wastewater

Do not allow to enter drains. Avoid release into the environment. Obtain special instructions/refer to safety data sheet.

Waste treatment of containers/packaging

This is hazardous waste; only approved packaging (e.g. in accordance with ADR) may be used. Completely empty packaging can be recycled. Contaminated packaging must be treated in the same way as the substance itself.

Relevant legislation on waste

Waste list

15 01 04 Metal packaging
15 01 10 Packaging containing residues of or contaminated by dangerous substances
16 05 04 Gases in pressure containers containing dangerous substances (including halons)

Comments

Please observe the relevant national or regional regulations. Waste must be separated so that it can be treated separately by municipal or national waste disposal facilities.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN	UN 1950
IMDG-Code	UN 1950
ICAO-TI	UN 1950

14.2 Proper UN shipping name

ADR/RID/ADN	PRESSURISED GAS CONTAINERS
IMDG-Code	AEROSOLS
ICAO-TI	Aerosols, flammable

14.3 transport hazard classes

ADR/RID/ADN	2 (2.1)
IMDG-Code	2.1
ICAO-TI	2.1

14.4 Packaging group Not assigned

14.5 Environmental hazards Not hazardous to the environment according to dangerous goods regulations

14.6 Special precautions for the user

The regulations for dangerous goods (ADR) must also be observed within the company premises.

14.7 Bulk cargo transport by sea in accordance with IMO instruments

The cargo is not transported as bulk cargo.

Information in accordance with the individual UN model regulations

Transport of dangerous goods by road, rail or inland waterways (ADR/RID/ADN)	**Additional information**
Classification code	5F
Hazard label	2.1

Special regulations (SV)	190, 327, 344, 625
Exempt quantities (EQ)	E0
Limited quantities (LQ)	1 L
Promotion category (BK)	2
Tunnel restriction code (TBC)	D

International Maritime Dangerous Goods Code (IMDG)	**Additional information**
Marine pollutant	-
Hazard label	2.1

Special regulations (SV)	63, 190, 277, 327, 344, 381, 959
Exempt quantities (EQ)	E0
Limited quantities (LQ)	1 L
EmS	F-D, S-U
Stowage category	-

International Civil Aviation Organisation (ICAO-IATA/DGR)	**Additional information**
Danger label	2.1

Special regulations (SV)	A145, A167
Exempt quantities (EQ)	E0
Limited quantities (LQ)	30 kg

SECTION 15: Legal provisions

15.1 Regulations on safety, health and environmental protection/specific legal provisions for the substance or mixture

Relevant provisions of the European Union (EU)

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - Candidate List

No component is listed

Industrial Emissions Directive (IE Directive)

VOC content 32 %

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

No component is listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

No component is listed

Water Framework Directive (WFD)

List of pollutants (WRR)

substance name	CAS No.	listed in	comments
Butan		A)	

Legend

a) Non-exhaustive list of the most important pollutants

Regulation on Persistent Organic Pollutants (POPs)

No component is listed

National regulations (Germany)

Regulation on facilities for handling substances hazardous to water (AwSV)

Water hazard class (WGK) 1 (slightly hazardous to water)

Technical guidelines for air pollution control (Germany)

number	substnace group	class	conc.	mass flow	mass concentration	note
5.2.5	organic substances		≥ 25 wt.%	0,5 $^{kg}/_{h}$	50 $^{mg}/_{m^3}$	3)

Note

3) The mass flow rate of 0.50 kg/h or the mass concentration of 50 mg/m³, each specified as total carbon, must not be exceeded in total (except for dust-like organic substances).

Storage of hazardous substances in portable containers (TRGS 510) (Germany)

Storage class (STC) 2 B (aerosol cans or lighters)

National registers

land	directory	status
EU	REACH Reg.	All ingredients are listed.

Legend

REACH Reg. REACH registered substances

15.2 Safety assessment

No substance safety assessments have been carried out for substances in this mixture.

SECTION 16: Other information

16.1 Changes made (revised safety data sheet)

section	previous entry (text/value)	current entry (text/value)	Safety-related
2.3	Endocrine-disrupting properties: Does not contain any endocrine disruptors (EDCs) in concentrations of ≥ 0.1%.	Endocrine-disrupting properties: Does not contain any endocrine disruptors (ED) in concentrations of ≥ 0.1%.	yes

16.2 Abbreviations and acronyms

ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways).
ADR	Accord relatif au transport international des marchandises dangereuses par route (Convention concerning the International Carriage of Dangerous Goods by Road).
ADR/RID/ADN	Convention concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN).
OEL	Occupational exposure limit.
Asp. Tox.	Risk of aspiration.
ATE	Acute Toxicity Estimate.
CAS	Chemical Abstracts Service (database of chemical compounds and their unique identifier, the CAS Registry Number).
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging (Classification, Labelling and packaging) of substances and mixtures.
DFG	German Research Foundation MAK and BAT Values List, Senate Commission for the Investigation of Occupational Hazards, Wiley-VCH, Weinheim.
DGR	Dangerous Goods Regulations Rules governing the transport of dangerous goods, see IATA/DGR.
DMEL	Derived Minimal Effect Level (derived exposure level with minimal adverse effects).
DNEL	Derived No-Effect Level (derived exposure level without adverse effects).
ED	Endocrine disruptor.
EG-Nr.	The EC inventory (EINECS, ELINCS and the NLP inventory) is the source of the seven-digit EC number used to identify substances in the EU (European Union).
EINECS	European Inventory of Existing Commercial Chemical Substances (European register of chemical substances available on the market).
ELINCS	European List of Notified Chemical Substances.
EmS	Emergency Schedule.
Flam. Gas	Flammable gas.
GHS	"Globally Harmonised System of Classification and Labelling of Chemicals" "Globally harmonised system for the classification and labelling of chemicals" developed by the United Nations.
IATA	International Air Transport Association.
IATA/DGR	Dangerous Goods Regulations (DGR) for air transport (IATA) (regulations governing the transport of dangerous goods by air).
ICAO	International Civil Aviation Organisation.
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air.
IMDG	International Maritime Dangerous Goods Code (international code for the transport of dangerous goods by sea).
IMDG-Code	International Maritime Dangerous Goods Code.
STV	Short-term value.
STC	Storage class according to TRGS 510, Germany.
NLP	No-Longer Polymer (no longer polymer).
PBT	Persistent, bioaccumulative and toxic.
PNEC	Predicted No-Effect Concentration.
Ppm	Parts per million.
Press. Gas	Gas under pressure.
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International Carriage of Dangerous Goods by Rail).
LMV	Layer mean value.
SVHC	Substance of Very High Concern.
TRGS	Technical rules for hazardous substances (Germany).
TRGS 900	Occupational exposure limits (TRGS 900).
VOC	Volatile organic compounds.
VPvB	Very Persistent and very Bioaccumulative (sehr persistent und sehr bioakkumulierbar).

16.3 Important literature and data sources

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
Regulation (EC) No 1907/2006 (REACH), amended by 2020/878/EU.
Transport of dangerous goods by road, rail or inland waterways (ADR/RID/ADN).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for air transport (IATA) (regulations governing the transport of dangerous goods by air).

16.4 Classification procedure

Physical and chemical properties. The classification is based on test results for the mixture. Health hazards. The procedure for classifying the mixture is based on the mixture components (additivity formula).

16.5 List of relevant sentences (code and wording as specified in sections 2 and 3)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Container is pressurised: may burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.

Disclaimer

The information provided is based on our current knowledge.
This SDS has been compiled exclusively for this product and is intended solely for this product.

End of the safety data sheet