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

1.1 Product identifier

Commercial product name: HinriScan-Spray Basic

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

Life cycle stages:	PW Widespread use by professional workers
Sector of Use:	SU20 Health services
Product category:	PC9a Coatings and paints, thinners, paint removers
Technical function:	Plating agent
Application of the substance / the mixture:	Auxiliary for dental technology

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:	ERNST HINRICHS Dental GmbH
Street / mailbox:	Borsigstr. 1
Country code. / postal code / city:	D - 38644 Goslar
Phone:	0 53 21 / 5 06 24
Fax:	0 53 21 / 5 08 81
E-mail / Website:	info@hinrichs-dental.de / www.hinrichs-dental.de
Further information obtainable from:	ERNST HINRICHS Dental GmbH

1.4 Emergency telephone number

ERNST HINRICHS Dental GmbH: +49 (0) 53 21 / 5 06 24 (Mon-Fri. 8 a.m. – 4 p.m.)

SECTION 2: Hazards identification *

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

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

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
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. Keep out of the reach of children

2.3 Other hazards:
Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients *

3.2 Chemical characterization : Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

Dangerous components		
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 RTECS: TZ 4300000	isobutane  Flam. Gas 1, H220; Press. Gas, H280	50-100%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 RTECS: KQ 6300000 Reg.nr.: 01-2119457610-43-XXXX	ethanol  Flam. Liq. 2, H225	2.5-10%

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

SECTION 4: First aid measures

4.1 Description of first aid measures
After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse open eye for several minutes under running water.

After swallowing: If symptoms persist consult doctor.

Information for doctor:

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.

SECTION 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.

5.2 Special hazards arising from the substance or mixture: No further relevant information available.

5.3 Advice for firefighters
Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions : Do not allow to enter sewers / surface or ground water.

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

SECTION 7: Handling and storage *

7.1 Precautions for safe handling: Keep away from heat and direct sunlight.
Use only in well ventilated areas.

Information about fire- and explosion protection: Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke. Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
Observe official regulations on storing packagings with pressurised containers.

Information about storing in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

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

SECTION 8: Exposure controls/personal protection *

8.1 Control parameters:

Ingredients with limit values that require monitoring at the workplace:	
64-17-5 ethanol	
WEL	Long-term value: 1920 mg/m³, 1000 ppm

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls:
Appropriate engineering controls: No further data; see item 7.
Individual protection measures, such as personal protective equipment

General protective and hygienic measures: Wash hands before breaks and at the end of work.

Respiratory protection:	Not required.

Hand protection:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves:	The selection of 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 cannot 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.
For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:	Rubber gloves
For the permanent contact gloves made of the following materials are suitable:	Neoprene gloves
As protection from splashes gloves made of the following materials are suitable:	Nitrile rubber, NBR. Butyl rubber, BR Natural rubber, NR
Eye/face protection:	Not requested.

SECTION 9: Physical and chemical properties *

9.1 Information on basic physical and chemical properties

General information:	
Colour:	White
Odour:	Alcohol-like
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range:	-48 °C
Flammability:	Extremely flammable liquefied gas.
Lower and upper explosion limit	
Lower:	1.5 Vol % (Isobutan)
Upper:	10.9 Vol % (Isobutan)
Flash point:	-80 °C
Ignition temperature:	365 °C
Decomposition temperature:	Not determined.
pH:	Not applicable.
Viscosity	
Kinematic viscosity:	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Not miscible or difficult to mix.
Partition coefficient n-octanol/water (log value):	Not determined.

Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C:	0.64 g/cm³
Relative density:	Not determined.
Vapour density:	Not determined.

9.2 Other information

Appearance:	
Form:	Compressed liquefied gas
Important information on protection of health and environment, and on safety	
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Solvent content	
Organic solvents:	10.5 %
VOC (EC):	95 %
Solids content:	6 %
Change in condition	
Evaporation rate:	Not applicable.
Information with regard to physical hazard classes	
Explosives:	Void
Flammable gases:	Void
Aerosols:	Extremely flammable aerosol. Pressurised container: May burst if heated.
Oxidising gases:	Void
Gases under pressure:	Void
Flammable liquids:	Void
Flammable solids:	Void
Self-reactive substances and mixtures:	Void
Pyrophoric liquids:	Void
Pyrophoric solids:	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water:	Void
Oxidising liquids:	Void
Oxidising solids:	Void
Organic peroxides:	Void
Corrosive to metals:	Void
Desensitised explosives:	Void

SECTION 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	No dangerous reactions known.
10.4 Conditions to avoid:	No further relevant information available.
10.5 Incompatible materials:	No further relevant information available.
10.6 Hazardous decomposition products:	No dangerous decomposition products known.

SECTION 11: Toxicological information

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

Acute toxicity:	Based on available data, the classification criteria are not met.
Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/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
Endocrine disrupting properties: None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability The single components are biodegradable

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

12.6 Endocrine disrupting properties: For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects No further relevant information available.
Additional ecological information
General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water: Do not allow

undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 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.

Uncleaned packaging – Recommendation:

Disposal must be made according to official regulations.

SECTION 14: Transport information *

14.1 UN-Number

ADR, IMDG, IATA

UN1950

14.2 UN proper shipping name

ADR

1950 AEROSOLS

IMDG

AEROSOLS

IATA

AEROSOLS, flammable

14.3 Transport hazard class(es)

ADR

Class:

2 5F Gases

Label:

2.1

IMDG, IATA

Class:

2.1 Gases.

Label:

2.1

14.4 Packaging group:

ADR, IMDG, IATA:

Void.

14.5 Environmental hazards:

Marine pollutant:

No.

14.6 Special precautions for user

Warning: Gases.

Hazard identification number (Kemler code):

-

EMS Number:

F-D,S-U

14.7 Maritime transport in bulk according to IMO instruments:

Not applicable.

Transport/Additional information:

ADR

Excepted quantities (EQ):

Code: E0
Not permitted as Excepted Quantity

IMDG

Limited quantities (LQ):

1L

Excepted quantities (EQ):

Code: E0

Not permitted as Excepted Quantity

SECTION 15: Regulatory information *

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

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

Hazard pictograms:

GHS02

Signal word: Danger.

Hazard statements:

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

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Directive 2012/18/EU
Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.

Recommended restriction of use: Product only for professional use

Abbreviations and acronyms:

RID:	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR:	Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO:	International Civil Aviation Organization
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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 (division of the American Chemical Society)
VOC:	Volatile Organic Compounds (USA, EU)
PBT:	Persistent, Bioaccumulative and Toxic
vPvB:	very Persistent and very Bioaccumulative
Flam. Gas 1:	Flammable gases – Category 1
Aerosol 1:	Aerosols – Category 1
Aerosol 3:	Aerosols – Category 3
Press. Gas (Comp.):	Gases under pressure – Compressed gas
Flam. Liq. 2:	Flammable liquids – Category 2

* Data compared to the previous version altered.