B. Braun Melsungen AG

Revision date: 11.12.2008 Revision no.: 1,50

HELIPUR H PLUS N

00047-0161

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

HELIPUR H PLUS N

Use of the substance/preparation

Desinfectant for instrumentst

Company/undertaking identification

B. Braun Melsungen AG Carl-Braun-Straße 1 D-34212 Melsungen

B. Braun Medical AG

Seesatz

CH-6204 Sempach

Inquiry office

Zentrale Service-Bereiche/Logistik und Supply Chain

Telefonnummer: ++49 (0) 5661 / 71-4422

Emergency telephone: ++49 (0) 6132 / 84463 (GBK Gefahrgut Buero GmbH, Ingelheim)

Responsible for the safety data sheet: sds@gbk-ingelheim.de

2. Hazards identification

Classification

Indications of danger: Corrosive

R-phrases:

Harmful by inhalation and if swallowed.

Causes burns.

May cause sensitization by inhalation and skin contact.

3. Composition/information on ingredients

Chemical characterization

(preparation)

Aqueous preparation contains isopropanol

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
*		Ethercarboxylate	< 15 %	Xi R41
203-856-5	111-30-8	Glutaraldehyde	< 15 %	T, C, N R23/25-34-42/43-50
*		Alcohol ethoxylate	< 10 %	Xn, Xi R22-41
200-661-7	67-63-0	Propan-2-ol	< 10 %	F, Xi R11-36-67

Full text of each relevant R phrase can be found in heading 16.

Further Information

*) Polymer

4. First aid measures

General information

Remove contaminated soaked clothing immediately.

If you feel unwell, seek medical advice.

GB - EN Page 1 of 7

B. Braun Melsungen AG

Revision date: 11.12.2008 Revision no.: 1,50

HELIPUR H PLUS N

00047-0161

After inhalation

Consult a physician after significant exposure.

Move to fresh air in case of accidental inhalation of vapours or decomposition products.

After contact with skin

Wash off immediately with soap and plenty of water.

Treat subsequently with skin cream.

Consult a physician.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Summon a doctor immediately.

After ingestion

Induce vomiting only upon the advice of a physician.

Drink plenty of water.

Summon a doctor immediately.

5. Fire-fighting measures

Suitable extinguishing media

Product is ignitable, but does not keep burning.

Fire-extinguishing activities according to surrounding.

Extinguishing media which must not be used for safety reasons

Full water jet

Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

Fire may produce:

Carbon monoxide and carbon dioxide.

Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

Protective suit

Additional information

Cool containers at risk with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. Accidental release measures

Personal precautions

In case of vapour formation use respirator.

Avoid contact with skin, eyes and clothing.

Ensure adequate ventilation.

Use personal protective clothing.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Shovel into suitable container for disposal.

7. Handling and storage

GB - EN Page 2 of 7

B. Braun Melsungen AG

Revision date: 11.12.2008 Revision no.: 1,50

HELIPUR H PLUS N

00047-0161

Handling

Advice on safe handling

Keep container tightly closed.

Keep a good ventilation and air-exhaust at the place of work.

Do not breathe vapours.

Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Product is ignitable, but does not keep burning.

Storage

Requirements for storage rooms and vessels

Keep containers tightly closed in a dry, well-ventilated place.

Advice on storage compatibility

Incompatible with strong acids and oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

Storageclass (VCI)

8 B

8. Exposure controls/personal protection

Exposure limit values

Exposure limits (EH40)

CAS-No.	Chemical name	ml/m³	mg/m³	F/ml	Category	Origin
111-30-8	Glutaraldehyde	0.05	0.2		TWA (8 h)	WEL
	Glutaraldehyde	0.05	0.2		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
	Propan-2-ol	500	1250		STEL (15 min)	WEL

Exposure controls

Occupational exposure controls

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Wash hands before breaks and immediately after handling the product.

When using do not eat or drink.

Take off immediately all contaminated clothing.

Avoid contact with eyes, skin or mucous membrane.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A).

Hand protection

Protective gloves resistant to chemicals made off natural-rubber latex, Minimum coat thickness 0.6 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Lapren 706> made by www.kcl.de.

This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Eye protection

Safety goggles with side protection

Eye wash bottle with pure water.

GB - EN Page 3 of 7

B. Braun Melsungen AG

Revision date: 11.12.2008 Revision no.: 1,50

HELIPUR H PLUS N

00047-0161

Skin protection

Long sleeved clothing.

Apron.

9. Physical and chemical properties

General information

Physical state Liquid Colour Green

Odour Characteristic

Important health, safety and environmental information

Test method

pH-Value: approx. 4,5

Changes in the physical state

Boiling point approx. $83 \,^{\circ}\text{C}$ Flash point $37 - 42 \,^{\circ}\text{C}$

Flammability

Lower explosion limits n. d.

Upper explosion limits

Ignition temperature n. d.

Density (at 20 °C): 1,02 g/cm³

Water solubility: Miscible

at (20 °C)

Viscosity / dynamic : approx. 5 mPa·s

*) Product is ignitable, but does not keep burning.

10. Stability and reactivity

Conditions to avoid

To avoid thermal decomposition, do not overheat.

Materials to avoid

Strong acids and oxidizing agents

Hazardous decomposition products

Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

Carbon monoxide and carbon dioxide.

Additional information

No decomposition if stored and applied as directed.

11. Toxicological information

Empirical data on effects on humans

The product causes burns of eyes, skin and mucous membranes.

Harmful by inhalation and if swallowed.

May cause sensitization by inhalation and skin contact.

12. Ecological information

GB - EN Page 4 of 7

B. Braun Melsungen AG

Revision date: 11.12.2008 Revision no.: 1,50

HELIPUR H PLUS N

00047-0161

Persistence and degradability

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Further information

Ecological injuries are not known or expected under normal use.

Hazard to waters

Biodegradable

Product is not allowed to be discharged into aquatic environment.

13. Disposal considerations

Advice on disposal

Where possible recycling is preferred to disposal.

Can be incinerated, when in compliance with local regulations.

Waste disposal number of waste from residues/unused products

070604

WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; other organic solvents, washing

liquids and mother liquors Classified as hazardous waste.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

14. Transport information

Land transport (ADR/RID)

ADR/RID class	8
Classification code :	C9
Hazard-no.	80
UN number	1903
Hazard label	8
ADR/RID packing group	Ш
Limited quantity:	LQ 7

Description of the goods

Disinfectant, liquid, corrosive, n.o.s. (Glutaraldehyde)

Other applicable information (land transport)

LQ 19: combination packaging: 3 I / 30 kg (total gross mass); trays: 1 I / 20 kg (total gross mass).

Inland waterways transport

Marine transport

Hazard label

IMDG code	8
UN number	1903
Marine pollutant	No
EmS	F-A; S-B
Limited quantity:	5 L / 30 kg
IMDG packing group	III

GB - EN Page 5 of 7

8

B. Braun Melsungen AG

Revision date: 11.12.2008 Revision no.: 1,50

HELIPUR H PLUS N

00047-0161

Description of the goods

DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (glutaraldehyde)

Other applicable information (marine transport)

Limited quantities (section 3.4): combination packaging: 5 l / 30 kg (total gross mass); trays: 5 l / 20 kg (total gross mass).

Air transport

ICAO/IATA-DGR8UN/ID number1903Hazard label8IATA-packing instructions - Passenger818IATA-max. quantity - Passenger5 LIATA-packing instructions - Cargo820IATA-max. quantity - Cargo60 LICAO packing groupIII

Limited quantity Passenger Y818 / 1L

Description of the goods

DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (glutaraldehyde)

15. Regulatory information

Labelling

Indication of danger C - Corrosive

Hazardous component(s) to be indicated on label

Glutaraldehyde

R phrases

20/22 Harmful by inhalation and if swallowed.

34 Causes burns.

42/43 May cause sensitization by inhalation and skin contact.

S phrases

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

This material and its container must be disposed of in a safe way. Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label

where possible).

Additional information

Regulation (EC) No 648/2004 (Regulation on detergents):

anionic surfactants: 5 - 15 %, Non-ionic surfactants < 5 %, Parfum: < 5 %, Ingredients subject to the labelling obligation according to SCCP: Limonene

National regulatory information

Employment restrictions Observe employment restrictions for young people. Observe

employment restrictions for child bearing mothers and nursing.

Water contaminating class (D) 2 - water contaminating

1999/13/EC (VOC) < 20 %

16. Other information

Full text of R-phrases referred to under sections 2 and 3

11 Highly flammable.

GB - EN Page 6 of 7

B. Braun Melsungen AG

Revision date: 11.12.2008 Revision no.: 1,50

HELIPUR H PLUS N

00047-0161

20/22	Harmful by inhalation and if swallowed.
22	Harmful if swallowed.
23/25	Toxic by inhalation and if swallowed.
34	Causes burns.
36	Irritating to eyes.
41	Risk of serious damage to eyes.
42/43	May cause sensitization by inhalation and skin contact.
50	Very toxic to aquatic organisms.
67	Vapours may cause drowsiness and dizziness.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

"(n.a. = not applicable; n.d. = not determined)"

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

GB - EN Page 7 of 7