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

1.1. Product identifier

Trade name: Isolit

REACH Registration No.: if available listed in Chapter. 3

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

Relevant applications identified: For dental use only.

1.3. Details of the supplier of the safety data sheet

Company:
emwerk GmbH
Bürgermeister-Otto-Knapp-Straße 49
D-49163 Bohmte

Telephone: +49 (0)5471/9515010
Telefax: +49 (0)7150/34113
Email address: sales@emwerk.de

1.4. Emergency telephone number

Emergency information: +49 (0) 5471 / 9515010 (This telephone number is available during office hours only.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

EU-CLP as per Regulation (EU) No. 1272/2008, Annex VI

Flammable liquids	Category 2	H225

2.2. Label elements

Labelling as per (EU) 1272/2008

Statutory basis: EU-CLP as per Regulation (EU) No. 1272/2008, Annex VI

hazard-defining component(s) (GHS)

- ethanol; ethyl alcohol

Hazard pictograms

Signal word: Danger

Hazard statement: H225 - Highly flammable liquid and vapour.

Precautionary statement: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.

2.3. Other hazards

Vapours can form explosive mixtures with air.
A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

SECTION 3: Composition/information on ingredients

3.1. Substances

-

3.2. Mixtures

Information on ingredients / Hazardous components as per EU-CLP Regulation (EC) No. 1272/2008

• **glycerol**	15% - 20%				
CAS-No.	56-81-5	EC-No.	200-289-5		
• **ethanol; ethyl alcohol**			70% - 75%		
CAS-No.	64-17-5	EC-No.	200-578-6		
Flammable liquids				Category 2	H225

Texts of H phrases, see in Chapter 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Take off all contaminated clothing immediately.

Inhalation
Move victims into fresh air.
Obtain medical attention.

Skin contact
Wash off with soap and plenty of water.
Obtain medical attention.

Eye contact
Keeping eyelid open, immediately rinse thoroughly for at least 5 minutes using plenty of water or, if necessary, eye rinsing solution.
Consult an ophthalmologist.

Ingestion
Call a physician immediately.
Clean mouth with water and drink afterwards plenty of water.
Ingest activated charcoal.
Do NOT induce vomiting.
Should vomiting occur, be sure to keep victim´s head below hips to avoid aspiration of vomitus into the lungs.

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

Symptoms
None known

Hazards
None known

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

No hazards which require special first aid measures.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: water spray
Alcohol-resistant foam
CO2
dry powder

Unsuitable extinguishing media: high volume water jet

5.2. Special hazards arising from the substance or mixture
Formation of flammable or explosive vapour/air mixtures possible.
In case of fire cool endangered containers with water.

5.3. Advice for firefighters
Employ protective equipment commonly used in the event of fire.
In the event of fire, wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Handle in accordance with good industrial hygiene and safety practice.
Do not inhale vapours / aerosols.
Ensure there is sufficient ventilation.

6.2. Environmental precautions
Introduction into soil, natural water bodies or sewerage must be prevented.

6.3. Methods and material for containment and cleaning up
Dilute with plenty of water.

6.4. Reference to other sections
Wear personal protective equipment; see section 8.
Disposal considerations; see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Use only in well-ventilated areas.
Ensure suitable suction/aeration at the work place and with operational machinery.

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion
Formation of flammable or explosive vapour/air mixtures possible.
Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharges.

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

German storage class
3 - Flammable liquids

7.3. Specific end use(s)

We are unaware of any specific end uses which go beyond the data reported in Section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

- **glycerol**

CAS-No.	56-81-5	EC-No.	200-289-5
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
type of exposure	Mist.		

- **ethanol; ethyl alcohol**

CAS-No.	64-17-5	EC-No.	200-578-6
Control parameters	1000 ppm 1920 mg/m3		Time Weighted Average (TWA):(EH40 WEL)

8.2. Exposure controls

Engineering measures
Ensure that there is suitable air extraction / ventilation in the workplace or at the working machines. If necessary extractor suction on specific objects., Do not breathe solvent vapours.

Personal protective equipment

Respiratory protection
If workplace exposure limit is exceeded apply Respirator with brown A-type filter.

Hand protection
Wear protective gloves made of the following materials: solvent-resistant material.

Glove material	butyl-rubber
Material thickness	0.5 mm
Break through time	60 min
Method	Source: GESTIS substance database (hazardous substance information system of commercial professional associations)

The suitability for a specific workplace should be discussed with the producers of the protective gloves., The exact break through time can be obtained from the protective glove producer and this has to be observed.
Preventive skin protection, Use barrier cream regularly.

Eye/face protection
Safety glasses with side-shields

Skin and body protection
Avoid contaminating clothes with product., Solvent-resistant apron

Hygiene measures
No eating, drinking, smoking, or snuffing tobacco at work., Wash hands before breaks and at the end of workday., Do not breathe vapour.

Protective measures
If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance			
Form	liquid		
Colour	colourless		
Odour	aromatic		
Odour threshold:	no data available		
pH	7	Medium:	Water
Melting point/range	< -15 °C		
Boiling point/range	ca. 100 °C		
Flash point	28 °C		
Evaporation rate	no data available		
Flammability (solid, gas)	Flammable		
Lower explosion limit	3.5 %(V)		

	tested substance: Ethanol
Upper explosion limit	15 %(V) tested substance: Ethanol
Vapour pressure	no data available
Density	0.876 g/cm3
Water solubility	soluble
Partition coefficient: n-octanol/water	no data available
Autoinflammability	Not capable of spontaneous combustion or heating.
Thermal decomposition	no data available
Viscosity, dynamic	no data available
Explosiveness	no data available
Oxidizing properties	no data available

9.2. Other information

Ignition temperature	425 °C tested substance:, Ethanol
Other information	No further physicochemical data were determined.

SECTION 10: Stability and reactivity

10.1. Reactivity
Vapours may form explosive mixture with air.

10.2. Chemical stability
Under normal conditions: stable.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Heating can release vapours which can be ignited., In use, may form flammable/explosive vapour-air mixture.

10.4. Conditions to avoid
Keep away from sources of ignition - No smoking.

10.5. Incompatible materials
None known

10.6. Hazardous decomposition products
None known

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity	LD50 Rat: 13600 mg/kg Test substance: Ethanol

LD50 Rat: 12600 mg/kg
Test substance: Glycerin

Acute inhalation toxicity	no data available
Acute dermal toxicity	no data available
Skin irritation	Has a degreasing effect on the skin. In the case of high or long-term exposure
Eye irritation	no data available
Sensitization	no data available
Repeated dose toxicity	no data available
Mutagenicity assessment	no data available
Carcinogenicity	No data available
Toxicity to reproduction	No data available

SECTION 12: Ecological information

12.1. Toxicity

No ecotoxicological studies are available.

Toxicity to fish	LC50 Leuciscus idus melanotus: 8140 mg/l Test substance: Ethanol literature
Toxicity in aquatic invertebrates	EC 3 Daphnia magna: 7800 mg/l Test substance: Ethanol
Toxicity to bacteria	EC 10 Pseudomonas putida: 6500 mg/l Test substance: Ethanol literature

12.2. Persistence and degradability

Biodegradability: no data available

12.3. Bioaccumulative potential

Bioaccumulation: no data available

12.4. Mobility in soil

Mobility: No data available

12.5. Results of PBT and vPvB assessment

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

12.6. Other adverse effects

Further Information: Introduction into soil, natural water bodies or sewerage must be prevented.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product

Disposal according to local authority regulations.

Uncleaned packaging

Disposal according to local authority regulations.

SECTION 14: Transport information

Transport on land (ADR/RID/GGVSEB)

14.1.	UN number:	UN 1170
14.2.	UN proper shipping name:	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3.	Transport hazard class(es):	3
14.4.	Packing group:	III
14.5.	Environmental hazards:	--
14.6.	Special precautions for user:	Yes
	ADR: Tunnel Restriction Code: (D/E)	

Inland waterway transport (ADN/GGVSEB (Germany))

14.1.	UN number:	UN 1170
14.2.	UN proper shipping name:	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3.	Transport hazard class(es):	3
14.4.	Packing group:	III
14.5.	Environmental hazards:	--
14.6.	Special precautions for user:	No

Air transport ICAO-TI/IATA-DGR

14.1.	UN number:	UN 1170
14.2.	UN proper shipping name:	Ethanol solution
14.3.	Transport hazard class(es):	3
14.4.	Packing group:	III
14.5.	Environmental hazards:	--
14.6.	Special precautions for user:	Yes
	IATA-C: ERG-Code 3L	
	IATA-P: ERG-Code 3L	

Sea transport IMDG-Code/GGVSee (Germany)

14.1.	UN number:	UN 1170
14.2.	UN proper shipping name:	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3.	Transport hazard class(es):	3
14.4.	Packing group:	III
14.5.	Environmental hazards:	--
14.6.	Special precautions for user:	No
	EmS:	F-E,S-D

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
for transportapproval see regulatory information

SECTION 15: Regulatory information

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

National legislation

employment restriction	Note employment restrictions for pregnant and lactating women., Note employment restrictions for minors.

15.2. Chemical safety assessment

Chemical safety assessment	No Chemical Safety Report as per Articles 2(8), 2(9) or 14 of the REACH Regulatione is required for this product.

SECTION 16: Other information

Classification and applied procedure to derive the classification of mixtures according to EU Regulation (EC) No. 1272/2008 (CLP)

Classification	Classification procedure
Flam. Liq., 2 , H225	

Relevant H phrases from chapter 3

H225 : Highly flammable liquid and vapour.

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Legend

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
BetrSichV	German Ordinance on Industrial Safety and Health
c.c.	closed cup
CAS	Chemical Abstract Services
CESIO	European Committee of Organic Surfactants and their Intermediates
ChemG	German Chemicals Act
CMR	carcinogenic-mutagenic-toxic for reproduction
DIN	German Institute for Standardization
DMEL	Derived minimum effect level
DNEL	Derived no effect level
EINECS	European Inventory of Existing Commercial Chemical Substances
EC50	half maximal effective concentration
GefStoffV	German Ordinance on Hazardous Substances
GGVSEB	German ordinance for road, rail and inland waterway transportation of dangerous goods
GGVSee	German ordinance for sea transportation of dangerous goods
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism

IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
ISO	International Organization For Standardization
LOAEL	Lowest observed adverse effect level
LOEL	Lowest observed effect level
NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
REACH	REACH registration
RID	Convention concerning International Carriage by Rail
STOT	Specific Target Organ Toxicity
SVHC	Substances of Very High Concern
TA	Technical Instructions
TPR	Third Party Representative (Art. 4)
TRGS	Technical Rules for Hazardous Substances
VCI	German chemical industry association
vPvB	very persistent, very bioaccumulative
VOC	volatile organic compounds
VwVwS	German Administrative Regulation on the Classification of Substances Hazardous to Waters into Water Hazard Classes
WGK	Water Hazard Class
WHO	World Health Organization