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

1.1 Product identifier

Commercial Product Name	**Glycos TM Classic 70; Glycos TM Clear 70**
Designation acc. to 67/548/ EEC / 1272/2008/EEC	Glycolic acid
CAS no.	79-14-1
EC-No.	201-180-5
REACH registration number	01-2119485579-17-0002

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

Relevant identified uses	Cosmetics, personal care products
Note:	SU 3,21,22 - ERC 2,8a - PROC 1,2,3,4,5,7,8a,8b,9,14,15 - PC39 - see exposure scenario 2,3,4,9
	Washing and cleaning products
Note:	SU 3,21,22 - ERC 2,4,8a - PROC 1,2,3,4,5,7,8a,8b,9,10,13,14 - PC 14,15,35,37 - see exposure scenario 1, 2, 5, 6, 7
	Manufacture of pulp, paper and paper products
Note:	SU 3 - ERC 2 - PROC 1,2,3,4,5,7,8a,8b,9,14,15 - PC 26 - see exposure scenario 1, 2
	Manufacture of textiles, leather, fur
Note:	SU 3 - ERC 2,4 - PROC 1,2,3,4,5,7,8a,8b,9,14,15 - PC 23,34 - see exposure scenario 1, 2, 9
	Ink and toners
Note:	SU 3 - ERC 4 - PROC 1,2,3,4,5,7,8a,8b,10,13 - PC 9a,18 - see exposure scenario 10
	Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
Note:	SU 3 - ERC 2,4 - PROC 1,2,3,4,5,7,8a,8b,9,13,14,15 - PC 20 - see exposure scenario 1, 2, 9
	Lubricants, greases, release products
Note:	SU 3 - ERC 2,4 - PROC 1,2,3,4,5,7,8a,8b,9,15 - PC 24 - see exposure scenario 2
	Laboratory chemicals
Note:	SU 3 - ERC 2 - PROC 1,2,3,4,5,7,8a,8b,9,14,15 - PC 21 - see exposure scenario 1, 2

	Use of intermediate
Note:	SU 3 - ERC 6a - PROC 1,2,3 - see exposure scenario 14, 15, 16
	Biocidal product
Note:	SU 3 - ERC 2 - PROC 1,2,3,4,5,7,8a,8b,9,14,15 - PC 8
	Further information: see exposure scenarios attached to this safety data sheet.

1.3 Details of the supplier of the safety data sheet

Company designation	CABB GmbH Ludwig-Hermann-Str. 100 DE-86368 Gersthofen
Responsible Department	Telephone: +49 6196 9674 0 Telefax: +49 6196 9674 199 info@cabb-chemicals.com
E-mail (competent person)	hubert.reif@cabb-chemicals.com

1.4 Emergency telephone number

Emergency telephone number	+49 (0)821-491714

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008	Acute Tox. 4; H332 Skin Corr. 1B; H314 Met. Corr. 1; H290

2.2 Label elements

Hazard pictogram

GHS05

GHS07

Signal word	Danger
H-statement(s)	H314: Causes severe skin burns and eye damage. H332: Harmful if inhaled. H290: May be corrosive to metals.
P-statement(s)	P280: Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER/doctor.
P501: Dispose of contents/container to ... (
Dispose of as special waste in compliance with local and national regulations.)

SECTION 3: Composition/information on ingredients

Hazardous ingredients

Ingredient		Classification (EC) 1272/2008	Concentration
Glycolic acid	CAS No.: 79-14-1 EC-No.: 201-180-5	Skin Corr. 1B; H314 Acute Tox. 4; H332 Met. Corr. 1; H290	70.0 - 71.0 % by weight

Other data

Notification status: AICS, DSL, ECL, EINECS, ENCS, IECSC, NZIoC, PICCS, SWISS, TSCA.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Remove and wash contaminated clothing before re-use.
In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Show this safety data sheet to the doctor in attendance.
First aider needs to protect himself.

If inhaled

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Call a physician immediately.
Show this safety data sheet to the doctor in attendance.

In case of skin contact

Wash off with plenty of water.
Call a physician immediately.

In case of eye contact

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

If swallowed

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Show this safety data sheet to the doctor in attendance.
Prevent vomiting if possible.
Immediately give large quantities of water to drink.

Notes to physician

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.3 Advice for firefighters

Special protective equipment for firefighting	Personal protection through wearing a tightly closed chemical protection suit and a self-contained breathing apparatus.
Additional information on firefighting	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment. For personal protection see section 8.

6.2 Environmental precautions

Environmental precautions	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labelled containers. Dispose of as special waste in compliance with local and national regulations. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	Provide good ventilation.
Advice on protection against fire and explosion	Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Storage space and container requirements	Store at room temperature in the original container. Metal containers must be lined.
Hints on storage assembly	Keep away from food, drink and animal feeding stuffs.
Storage specifications	Keep containers tightly closed in a dry, cool and well-ventilated place.
German storage class	8B

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Glycolic acid

DNEL

Value	Target group	Exposure route	Source
9.2 mg/m3	DNEL worker	DNEL acute inhalative (local) / DNEL acute inhalative (systemic)	100
1,53 mg/m3	DNEL worker	DNEL long-term inhalative (local)	100
58 mg/kg bw	DNEL worker	DNEL long-term dermal (systemic)	100
0,75 mg/kg/bw	DNEL Consumer	DNEL long-term oral (repeated)	100
29 mg/kg bw/day	DNEL Consumer	DNEL long-term dermal (systemic)	100
2,3 mg/m3	DNEL Consumer	DNEL acute inhalative (local) / DNEL acute inhalative (systemic)	100

Source: 100 - Firmendaten

PNEC

Value	Target group	Source
0,0312 mg/L	PNEC aquatic, freshwater	100
0,0031 mg/L	PNEC aquatic, marine water	100
0,312 mg/L	PNEC aquatic, intermittent release	100
7 mg/L	PNEC sewage treatment plant (STP)	100
0,115 mg/kg dw	PNEC sediment, freshwater	100
0,0115 mg/kg dw	PNEC sediment, marine water	100
0,007 mg/kg dw	PNEC soil, freshwater	100
11,66 mg/kg	PNEC Secondary Poisoning	100

Source: 100 - Firmendaten

8.2 Exposure controls

Hand protection	Suitable material: Chloroprene
Material thickness:	min. 0,6 mm
Break through time:	> 480 min
Reference substance:	Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Eye protection	Tightly fitting safety goggles Face-shield
Skin and body protection	Wear suitable protective equipment.
General protective and hygiene measures	Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Avoid contact with skin,

eyes and clothing. Keep away from food, drink and animal feedingstuffs.
Do not inhale aerosol.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	odourless
pH	1,0 - 1,5
Temperature:	20 °C
Concentration:	700 gl/l
Boiling point [°C]	110 - 120
Pressure:	1013 hPa
	110 - 120 °C
Flash point [°C]	Not combustible.
Evaporation rate [kg/(s*m²)]	No data available
Flammability (solid, gas)	Not applicable
Explosion limits [Vol-%]	
Remarks:	Not applicable
Vapour pressure [kPa]	There are no data available on the mixture itself.
Density [g/cm³]	approx. 1,28
Temperature:	20 °C
Relative density of a vapour / air mixture (saturated)	Not applicable
Water solubility [g/l]	completely miscible
Partition coefficient n-octanol / water (log P O/W)	-1,11
Autoignition temperature [°C]	not applicable
Autoinflammability	Not applicable
Decomposition temperature [°C]	no data available
Viscosity, dynamic [kg/(m*s)]	no data available
Risk of explosion.	Not applicable.

Oxidising properties	The study need not be conducted for organic compounds containing oxygen, fluorine or chlorine and these elements are chemically bonded only to carbon or hydrogen.

9.2 Other information

Freezing point [°C]	4 - 6
Oxidizing properties	Not applicable.
Miscibility with water	completely miscible
Surface tension [mN/m]	no data available

SECTION 10: Stability and reactivity

10.3 Possibility of hazardous reactions

Hazardous reactions	No dangerous reaction known under conditions of normal use.

10.5 Incompatible materials

Materials to avoid	Strong bases Metals

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Oral toxicity [mg/kg]

Value	Test criterion	Test species	Remarks
> 2000 mg/kg	LD50	rat	Information refers to the main component.

Dermal toxicity [mg/kg]	no data available
Inhalative toxicity [mg/l]	LC50 = 3,6 mg/l (as aerosol)

Subacute, subchronic, chronic toxicity

Value	Measuring method	Test criterion	Test species	Exposure duration	Route of exposure
150 mg/kg bw/day	OECD TG 408	NOAEL	Rat	90 d	oral
230 mg/m3	Limit Test.	NOAEL	Rat	14 d	inhalative

Irritant effect on skin	corrosive effects
Irritant effect on eyes	corrosive effects
Sensitization	No sensitization responses were observed.
Carcinogenic effects	Did not show carcinogenic effects in animal experiments.
Mutagenicity	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects
Reproduction toxicity	No toxicity to reproduction

Specific target organ toxicity (single exposure) [mg/kg]

Remarks: No data available

Specific target organ toxicity (repeated exposure) [mg/kg]

Remarks: No data available

Aspiration hazard

Evaluation
No data available

11.2 Additional information

Other information (chapter 11.) Information refers to the main component.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish [mg/l]

Value	Test criterion	Test species	Measuring method	Exposure duration	Remarks
115 mg/l	LC50	Pimephales promelas	US EPA E 72-2	96 h	The product leads to changes in the pH value of the test system. The result refers to an unneutralised sample.

Toxicity to daphnia [mg/l]

Value	Test criterion	Test species	Exposure duration	Measuring method	Remarks
99,6 mg/l	EC50	Daphnia magna	48 h	OECD Test Guideline 202	The product leads to changes in the pH value of the test system. The result refers to an unneutralised sample.

Toxicity to algae [mg/l]

Value	Test criterion	Test species	Exposure duration	Measuring method	Remarks
15,3 mg/l	LC50	Pseudokirchneriella subcapitata	72 h	OECD Test Guideline 201	The product leads to changes in the pH value of the test system. The result refers to an unneutralised sample.

NOEC (fish) [mg/l] 91 mg/l

NOEC (daphnia) [mg/l]	71 mg/l
NOEC (algae) [mg/l]	14 mg/l

12.2 Persistence and degradability

Biodegradability	Readily biodegradable.
Measuring method:	OECD Test Guideline 301B / 301 D

12.3 Bioaccumulative potential

Bioaccumulation	Does not bioaccumulate.

12.5 Results of PBT and vPvB assessment

Results of PBT characteristics determination	This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

Toxicity to bacteria [mg/l]	> 1000 mg/l
Test criterion:	EC0
Further information on ecology	Try to prevent the material from entering drains or water courses. Avoid subsoil penetration. Information refers to the main component.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal considerations	Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. Can be incinerated, when in compliance with local regulations.
Uncleaned empty packaging	Dispose of as unused product.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
14.1 UN-No	3265	3265	3265
14.3 Transport hazard class(es)	8	8	8
14.4 Packaging group	II	II	II
14.2 Description of the goods	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	Ätzende Flüssigkeit, sauer, organisch, n.a.g.
14.2 UN proper shipping name		CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	Corrosive liquid, acidic, organic, n.o.s.
Danger releasing sub-stance	Glycolic acid	Glycollic acid	Glycollic acid
Labels	8 	8 	8 
Risk No.	80		
Category	2		

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
Classification Code	C3		
Tunnel restriction code	E		
EmS		F-A;S-B	
Stowage category		B	

	TDG - Transport of Dangerous Goods (Canada)	CFR 49 - Code of Federal Regulations (US)
UN-No	3265	3265
Transport hazard class(es)	8	8
Packaging group	II	II
Description of the goods	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	Corrosive liquid, acidic, organic, n.o.s.
Danger releasing substance	Glycollic acid	Glycollic Acid
Labels	8	8
Environmental hazards	0: Non-marine pollutant	0: Non-marine pollutant

SECTION 15: Regulatory information

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

Additional regulations: Take note of Dir 94/33/EC on the protection of young people at work.
Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

TA Luft List (Germany)

Transport hazard class(es): 5.2.5

Water Hazard Class (Ger.): 1

Identification number: 4553

Remarks: slightly water endangering

15.2 Chemical safety assessment

Safety assessment: For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Relevant H-phrases:
H290: May be corrosive to metals.
H314: Causes severe skin burns and eye damage.
H332: Harmful if inhaled.

Wording of the hazard classes:
Acute Tox.: Acute toxicity
Skin Corr.: Skin corrosion
Met. Corr.: Substance or mixture corrosive to metals

Department issuing safety data sheet: Dr. Hubert Reif / HSEQ (+49 821 479 2555)

Further information: (M)SDS sections updated: 1, 15

Modifications of the previous version are denoted with an asterisk (*).

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.