

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. Product identifier:**
Doppler dummy fluid
- 1.2. Relevant identified uses of the mixture and uses advised against:**
Fluid for ultrasonic Doppler measurements in tube systems with the pulse-Doppler device "FlowDop".
For industrial use only.
- 1.3. Details of the supplier of the safety data sheet:**
Information about the manufacturer/distributor:
GAMPT mbH
06217 Merseburg
Germany
Tel.: +49 3461 278 691-0
- 1.3.1.** Responsible person: Quality Management Department
E-mail: info@gampt.de
- 1.4. Emergency telephone number:** UK National Poisons Emergency 0870 600 6266

SECTION 2: HAZARDS IDENTIFICATION

- 2.1. Classification of the mixture:**
Classification according to Regulation 1272/2008/EC (CLP):
Not considered as hazardous mixture.
Warning **H statements:** none.
- 2.2. Label elements:**
Warning **H statements:** none.
Precautionary **P statements:** none.
- 2.3. Other hazards:**
Product does not pose health an environmental hazard under normal conditions of use.
Results of PBT and vPvB assessment: no data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances:**
 Not applicable.

3.2. **Mixtures:**

Description	CAS number	EC number / ECHA list number	REACH registration number	Conc. (%)	Classification according to Regulation 1272/2008/EC (CLP)		
					Hazard pictogram	Hazard category	H phrase
Glycerol*	56-81-5	200-289-5	-	86.5	-	-	-
Quaternary ammonium compounds, benzyl-C₁₈-alkyldimethyl, chlorides	8001-54-5 / 63449-41-2	264-151-6	-	0.1	GHS05 GHS07 GHS09 Danger	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Aquatic Acute 1	H312 H302 H314 H400

The product also includes distilled water (relatively to Glycerol: 1:2), glass beads (diameter: 0-50 µm), colouring material (relatively to Glycerol: 0,167 %), FS 1890/7 (relatively to Glycerol: 0,278) and Polystabil (relatively to Glycerol: 0,278).

*: Classification specified by the manufacturer, the substance is not listed in Annex VI of the Regulation (EC) No. 1272/2008.

For the full text of H phrases: see section 16.

SECTION 4: FIRST AID MEASURES

4.1. **Description of first aid measures:**

General information: no specific prescriptions.

INGESTION:

Measures:

- Keep affected person warm, still and covered.
- Never give anything by mouth and do not induce vomiting if the affected person is unconscious.
- Call a physician immediately and show him label.

INHALATION:

Measures:

- Move affected person into fresh air, loosen clothing and allow to rest.
- If symptoms occur, consult a physician.

SKIN CONTACT:

Measures:

- Remove contaminated clothing and wash before reuse.
- Wash skin with copious amount of water and soap (for at least 15 minutes).
- If irritation persists, consult a physician.

EYE CONTACT:

Measures:

- In case of contact with eyes flush immediately with plenty of flowing water for 15 minutes holding eyelids apart.
- Consult a physician.

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

No acute and delayed symptoms and effects known.

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

Information to the physician: no specific prescriptions.

Handling: symptomatic treatment is recommended.

SECTION 5: FIREFIGHTING MEASURES

5.1. **Extinguishing media:**

5.1.1. **Suitable extinguishing media:**

Dry chemical, foam, CO₂.

5.1.2. **Unsuitable extinguishing media:**

None known.

5.2. Special hazards arising from the substance or mixture:

In case of fire, smoke and other combustion products may be formed, the inhalation of such combustion products can have serious adverse effects on health.

5.3. Advice for firefighters:

Wear full protective clothing and self-contained breathing apparatus.
 Collect extinguishing water separately. Do not discharge into drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

6.1.1. For non-emergency personnel:

Allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders:

Provide sufficient ventilation.
 Caution: spilled product creates extremely slippery conditions.

6.2. Environmental precautions:

Dispose the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. Methods and material for containment and cleaning up:

Absorb spill with neutral, mineral inert material, then place into a suitable, closed, properly labelled chemical waste container for disposal. Collect leaking and spilled liquid, observing precautions in section 8.
 During disposal wear suitable personal protective equipment.
 Dispose of the wash-off residue in a manner consistent with local regulations.

6.4. Reference to other sections:

For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Observe conventional hygiene precautions.

Technical measures:

Provide sufficient ventilation.

Precautions against fire and explosion:

No special measures required.

7.2. Conditions for safe storage, including any incompatibilities:

Technical measures and storage condition:

Keep only in original tightly closed container with the proper labelling.
 Store in well-ventilated and cleanable areas only.
 Storage at room temperature.
 Follow all instructions on the label.

Incompatible materials: see section 10.5

Packaging material: no special prescriptions.

7.3. Specific end use(s):

No specific instructions available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Occupational exposure limit values (Commission Directive 2000/39/EC of 8 June 2000):

The components of the mixture are not regulated with exposure limit value.

DNEL values		Oral exposure		Dermal exposure		Inhalative exposure	
		Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)
Consumer	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data
Worker	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data

PNEC values		
Compartment	Value	Note(s)
Freshwater	no data	none
Seawater	no data	none
Freshwater sediment	no data	none
Seawater sediment	no data	none
Wastewater Treatment Plant (STP)	no data	none
Intermittent release	no data	none
Secondary poisoning	no data	none
Soil	no data	none

8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1. Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. Use only under conventional conditions, and if adequate general mechanic ventilation or local exhaust is provided.

8.2.2. Individual protection measures, such as personal protective equipment:

- Eye/face protection:** use appropriate protective glasses (EN 166).
- Skin protection:**
 - Hand protection:** use appropriate protective gloves (EN 374).
 - Other:** use appropriate protective clothing.
- Respiratory protection:** no special prescriptions.
- Thermal hazards:** none known.

8.2.3. Environmental exposure controls:

No specific prescription.

The requirements detailed in section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Parameter	Value / Test method / Remarks
1. Appearance:	light blue liquid
2. Odour:	odourless
3. Odour threshold:	no data*
4. pH:	no data*
5. Melting point/freezing point:	no data*
6. Initial boiling point and boiling range:	no data*
7. Flash point:	no data*
8. Evaporation rate:	no data*
9. Flammability (solid, gas):	no data*
10. Upper/lower flammability or explosive limits:	no data*
11. Vapour pressure:	no data*
12. Vapour density:	no data*
13. Relative density:	no data*
14. Solubility(ies):	no data*
15. Partition coefficient: n-octanol/water:	no data*
16. Auto-ignition temperature:	no data*
17. Decomposition temperature:	no data*
18. Viscosity:	no data*
19. Explosive properties:	no data*
20. Oxidizing properties:	no data*

9.2. Other information:

No data available.

*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

None known.

10.2. Chemical stability:

Stable under general work conditions.

10.3. Possibility of hazardous reactions:

No hazardous reactions known.

10.4. Conditions to avoid:

No conditions to avoid known.

10.5. Incompatible materials:

Oxidizing agents.

10.6. Hazardous decomposition products:

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

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.

11.1.1. Summaries of the information derived from the test conducted:

No data available.

11.1.2. Relevant toxicological properties:

Acute toxicity (LD50):

No product specific data available.

Other:

Skin contact: not known.

Eye contact: not known.

Irritation: not known.

Sensitization: no sensitizing effects known.

Subacute and chronic toxicity:

Symptoms of overexposure or repeated exposure: not known.

CMR effects:

Carcinogenicity: not known.

Reproductive toxicity: not known.

Mutagenicity: not known.

Summarized evaluation of the CMR properties: not available.

Specific symptoms observed in animal studies: not known

11.1.3. Information on likely routes of exposure:

Ingestion, inhalation, skin contact, eye contact.

11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:

There are no important acute and delayed symptoms and effects known.

11.1.6. Interactive effects:

No data available.

11.1.7. Absence of specific data:

No information.

11.1.8. Other information:

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

The mixture is not classified as hazardous for the environment.

12.2. Persistence and degradability:

No data available.

12.3. Bioaccumulation potential:

No data available.

12.4. Mobility in soil:

No data available.

12.5. Results of PBT and vPvB assessment:

No data available.

12.6. Other adverse effects:

Do not let the product enter drains, surface and ground water and the soil.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Disposal according to the local regulations.

13.1.1. Information regarding the disposal of the product:

Disposal should be done in accordance with national, regional and local environmental control regulations.

List of Waste Code:

For this product no waste disposal key according to the List of Waste Code (LoW code) can be determined, as only the purpose of application defined by the user enables an allocation. The LoW code number has to be determined after a discussion with a specialist dealing with waste disposal.

13.1.2. Information regarding the disposal of the packaging:

Completely emptied packaging can be recycled.

Uncleaned packaging should be treated with the same precautions as the material

13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:

None known.

13.1.4. Sewage disposal:

None known.

13.1.5. Special precautions for any recommended waste treatment:

No data available.

SECTION 14: TRANSPORT INFORMATION

ADR/RID; IMDG; IATA:

Not dangerous good in sense of the transport regulations.

14.1. UN Number:

None.

14.2. UN proper shipping name:

None.

14.3. Transport hazard class(es):

None.

14.4. Packaging group:

None.

14.5. Environmental hazards:

No relevant information available.

14.6. Special precautions for user:

No relevant information available.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code:

Not applicable

SECTION 15: REGULATORY INFORMATION

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

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2. Chemical safety assessment: no information.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet:

The safety data sheet has been revised according to Regulation (EU) 2015/830 (section 1-16).

The composition and hazard classification of the mixture did not change compared to the previous version.

This Safety Data Sheet supersedes all previous versions according to Annex II of Regulation (EC) No 1907/2006.

Literature references / data sources:

Previous version of the safety data sheet (12. 04. 2010, version 1).

Methods used for the classification according to Regulation 1272/2008/EC:

Based on the calculation method carried out on the basis of the known hazards of the components, not considered as hazardous mixture.

Relevant H-Phrases (number and full text) of Section 2 and 3:

H302 – Harmful if swallowed.

H312 – Harmful in contact with skin.

H314 – Causes severe skin burns and eye damage.

H400 – Very toxic to aquatic life.

Training advice: no data available.

Full text of the abbreviations in the safety data sheet:

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate.

AOX: Adsorbable organic halides.

BCF: Bioconcentration factor.

BOD: Biological Oxygen Demand.

CAS number: Chemical Abstract Service number.

CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

CMR effects: Carcinogenic, mutagenic, reprotoxic effects.

COD: Chemical Oxygen Demand.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

DNEL: Derived-No-Effect-Level.

ECHA: European Chemical Agency.

EC: European Community.

EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).

EEC: European Economic Community.

EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European Norm.
EU: European Union.
EWC: European Waste Catalogue (replaced by LoW – see below).
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
IATA: International Air Transport Association.
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
IMSBC: International Maritime Solid Bulk Cargoes.
IUCLID: International Uniform Chemical Information Database.
IUPAC: International Union of Pure and Applied Chemistry.
Kow: n-Octanol - Water Partition Coefficient.
LC₅₀: Lethal concentration resulting in 50 % mortality.
LD₅₀: Lethal dose resulting in 50 % mortality (median lethal dose).
LoW: List of Waste.
LOEC: Lowest Observed Effect Concentration.
LOEL: Lowest Observed Effect Level.
NOEC: No Observed Effect Concentration.
NOEL: No Observed Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
OECD: Organization for Economic Cooperation and Development.
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic.
PNEC: Predicted No Effect Concentration.
QSAR: Quantitative Structure Activity Relationship.
REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.
SCBA: Self Contained Breathing Apparatus.
SDS: Safety Data Sheet.
STOT: Specific Target Organ Toxicity.
SVHC: Substances of Very High Concern.
UN: United Nations.
UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.
VOC: Volatile Organic Compound.
vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information.

The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product.

It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Safety data sheet was prepared by:
MSDS-Europe
International branch of ToxInfo Kft.

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the safety data sheet:
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