

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

G-Frost

Version 1.0

Print Date 19.05.2023

Revision date / valid from 20.12.2021

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

1.1. Product identifier

Trade name : *G-Frost* - Susokal B 25 neu

UFI : VDYF-103R-J00P-2CTT

UFI code notified in : Austria, Germany

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

Use of the Substance/Mixture : Cooling agent

Uses advised against : Not to be used as a biocidal product.

1.3. Details of the supplier of the safety data sheet

Company : Plasmatechnik Markus Colling GmbH & Co. KG
Gewerbegebiet Wallfeld 2
66649 Oberthal / Germany

Telephone : +49 (0)6854-90929-0

Telefax : +49 (0)6854-90929-29

E-mail address : pmc@plasmatechnik.com

Responsible/issuing person : Markus Colling

1.4. Emergency telephone number

Emergency telephone number : +49 (0)201-6496-0 (Available: 24 hours / 7 days)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Flammable liquids	Category 3	---	H226

For the full text of the H-Statements mentioned in this Section, see Section 16.


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Most important adverse effects

Human Health	:	See section 11 for toxicological information.
Physical and chemical hazards	:	See section 9/10 for physicochemical information.
Potential environmental effects	:	See section 12 for environmental information.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols	:	
Signal word	:	Warning
Hazard statements	:	H226 Flammable liquid and vapour.
Precautionary statements	:	
Prevention	:	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed.
Response	:	P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage	:	P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal	:	P501 Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	
		Hazard class / Hazard category	Hazard statements
ethanol			
Index-No. : 603-002-00-5	>= 20 - < 30	Flam. Liq.2	H225
CAS-No. : 64-17-5		Eye Irrit.2	H319
EC-No. : 200-578-6			
EU REACH- : 01-2119457610-43-xxxx			
Reg. No.			

Remarks : The product does not contain any ingredients according the EU Detergent Regulation (EC/648/2004), Annex VII A.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

- General advice : Take off immediately all contaminated clothing.
- If inhaled : Remove to fresh air. If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

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

- Symptoms : See Section 11 for more detailed information on health effects and symptoms.
- Effects : Consists mainly of ethanol. Depending on the quantity and other circumstances consumption of ethanol can lead to a state of mental excitement and subsequent intoxication with symptoms like loss of self-control, dizziness or vomiting.

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

- Treatment : Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet

5.2. Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Combustible liquid. Vapours may form explosive mixture with air. Flash back possible over considerable distance.

5.3. Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
- Further advice : Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Personal precautions : Wear personal protective equipment. Keep away from heat and sources of ignition. Ensure adequate ventilation.

6.2. Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid subsoil penetration. If material reaches soil inform authorities responsible for such cases.

6.3. Methods and materials for containment and cleaning up

- Methods and materials for containment and cleaning up : Ensure adequate ventilation. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Treat recovered material as described in the section "Disposal considerations". Flush with plenty of water.

6.4. Reference to other sections

- For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Advice on safe handling : Keep container tightly closed. Use only in well-ventilated areas. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Hygiene measures : Take off all contaminated clothing immediately. Do not breathe gas/fumes/vapour/spray. Keep away from food, drink and animal feedingstuffs. Use good personal hygiene practices. Wash hands before eating, drinking or using toilet facilities. Take off protective clothing before entering the canteen and wash the protective clothing regularly.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in an area equipped with solvent resistant flooring. Keep away from heat and sources of ignition.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking. Vapours may form explosive mixtures with air. Take measures to prevent the build up of electrostatic charge.

German storage class : 3 Flammable liquids

7.3. Specific end use(s)

Specific use(s) : No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component:	ethanol	CAS-No. 64-17-5
Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)		

DNEL
Workers, Long-term - systemic effects, Inhalation : 950 mg/m³

DNEL
Workers, Acute - local effects, Inhalation : 1900 mg/m³

DNEL
Workers, Long-term - systemic effects, Skin contact : 343 mg/kg bw/day

DNEL
Consumers, Long-term - systemic effects, Inhalation : 114 mg/m³

DNEL
Consumers, Acute - local effects, Inhalation : 950 mg/m³

DNEL
Consumers, Long-term - systemic effects, Skin contact : 206 mg/kg bw/day

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DNEL
Consumers, Long-term - systemic effects, Ingestion : 87 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

Fresh water	: 0,96 mg/l
Marine water	: 0,79 mg/l
Intermittent releases	: 2,75 mg/l
Sewage treatment plant (STP)	: 580 mg/l
Fresh water sediment	: 3,6 mg/kg d.w.
Marine sediment	: 2,9 mg/kg d.w.
Soil	: 0,63 mg/kg d.w.
Secondary poisoning	: 380 mg/kg food

Other Occupational Exposure Limit Values

Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended, Exposure limit(s):
200 ppm, 380 mg/m³, (4)
If the AGW and BGW values are complied with, there should be no risk of reproductive
damage (see Number 2.7).

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Required, if exposure limit is exceeded (e.g. OEL).
Recommended Filter type:
Combination filter: A-P2

Hand protection

Advice : Wear suitable gloves.
Please observe the instructions regarding permeability and
breakthrough time which are provided by the supplier of the gloves.
Also take into consideration the specific local conditions under
which the product is used, such as the danger of cuts, abrasion,

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and the contact time.

Protective gloves should be replaced at first signs of wear.

The following materials are suitable:

Material : butyl-rubber
Break through time : ≥ 8 h
Glove thickness : 0,5 mm

Material : Fluorinated rubber
Break through time : ≥ 8 h
Glove thickness : 0,4 mm

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : Flame retardant antistatic protective clothing.
Solvent resistant protective clothing

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.
Avoid subsoil penetration.
If material reaches soil inform authorities responsible for such cases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form : liquid
Colour : colourless
Odour : characteristic
Odour Threshold : no data available
pH : 5,5 - 8,5 (1 %)
Freezing point : no data available
Boiling point/boiling range : 78 °C
Flash point : 33 °C
Evaporation rate : no data available

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Flammability (solid, gas)	:	no data available
Upper explosion limit	:	23 %(V) Ethanol
Lower explosion limit	:	3,1 %(V) Ethanol
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Density	:	0,96 g/cm ³ (20 °C)
Water solubility	:	miscible
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available
Thermal decomposition	:	no data available
Viscosity, dynamic	:	no data available
Explosivity	:	Formation of explosive air/vapour mixtures is possible.
Oxidizing properties	:	no data available

9.2. Other information

No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice : No decomposition if stored and applied as directed.

10.2. Chemical stability

Advice : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Formation of explosive air/vapour mixtures is possible.

10.4. Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5. Incompatible materials

Materials to avoid : Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

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Hazardous decomposition : Fire may cause evolution of: Carbon dioxide (CO₂), Carbon monoxide, Under certain fire conditions, traces of other toxic products cannot be excluded.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Data for the product

Acute toxicity

Oral

For this mixture is no data available., Please find this information in the listing of the component/components below in this section.

Inhalation

For this mixture is no data available.
Please find this information in the listing of the component/components below in this section.

Dermal

For this mixture is no data available.
Please find this information in the listing of the component/components below in this section.

Irritation

Skin

Result : Not classified based on the calculation method according to CLP regulation.

Eyes

Result : Not classified based on the calculation method according to CLP regulation.

Sensitisation

Result : No sensitizing effect known.

CMR effects

CMR Properties

Carcinogenicity : It is not considered carcinogenic.
Based on available data, the classification criteria are not met.
Mutagenicity : It is not considered mutagenic.
Based on available data, the classification criteria are not met.
Reproductive toxicity : It is not considered toxic for reproduction.
Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity

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Single exposure

Remarks : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Repeated exposure

Remarks : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Other toxic properties

Repeated dose toxicity

no data available

Aspiration hazard

No aspiration toxicity classification,

Further information

Other relevant toxicity information : Contains ethanol. Depending on the quantity and other circumstances consumption of ethanol can lead to a state of mental excitement and subsequent intoxication with symptoms like loss of self-control, dizziness or vomiting.

Component:	ethanol	CAS-No. 64-17-5
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Acute toxicity

Oral

LD50 : 10470 mg/kg (Rat, male and female) (OECD Test Guideline 401)

Inhalation

LC50 : 51 mg/l (Rat; 4 h; vapour) (OECD Test Guideline 403)

Dermal

LD50 : > 2000 mg/kg (Rabbit) (OECD Test Guideline 402)

SECTION 12: Ecological information

12.1. Toxicity

Component:	ethanol	CAS-No. 64-17-5
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Acute toxicity

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Fish

LC50	:	15.300 mg/l (Pimephales promelas (fathead minnow); 96 h) (flow-through test; US-EPA)
LC50	:	11.200 mg/l (Salmo gairdneri; 24 h) (flow-through test; US-EPA)
LC50	:	13.000 mg/l (Oncorhynchus mykiss; 96 h) (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

EC50	:	858 mg/l (Artemia salina; 24 h) (OECD Test Guideline 202)Marine water
EC50	:	12.340 mg/l (Daphnia magna (Water flea); 48 h) (ASTM E 729-80)Fresh water
LC50	:	5.012 mg/l (Ceriodaphnia dubia (water flea); 48 h) (static test; ASTM E 729-80)Fresh water

algae

EC50	:	275 mg/l (Chlorella vulgaris (Fresh water algae); 72 h) (static test; End point: Growth rate; OECD Test Guideline 201)Fresh water
EC10	:	11,5 mg/l (Chlorella vulgaris (Fresh water algae); 72 h) (static test; OECD Test Guideline 201)

Bacteria

EC50	:	5800 mg/l (Paramecium caudatum; 4 h) (static test; No guideline followed)
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12.2. Persistence and degradability

Component:	ethanol	CAS-No. 64-17-5
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Persistence and degradability

Persistence

Result	:	(Related to: Water) non-significant hydrolysis
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Biodegradability

Result	:	97 % (aerobic; activated sludge; Related to: CO2 formation (% of the theoretical value).; Exposure Time: 28 d)(OECD Test Guideline 301B)Readily biodegradable.
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12.3. Bioaccumulative potential

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Component:	ethanol	CAS-No. 64-17-5
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Bioaccumulation

Result : log Kow -0,35 (24 °C; pH 7,4) (OECD Test Guideline 107)
: BCF: 0,66; Does not bioaccumulate.

12.4. Mobility in soil

Component:	ethanol	CAS-No. 64-17-5
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Mobility

Water : The product is water soluble.
Air : The product evaporates readily.
Soil : Not expected to adsorb on soil.

12.5. Results of PBT and vPvB assessment

Data for the product

Results of PBT and vPvB assessment

Result : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Other adverse effects

Data for the product

Additional ecological information

Result : Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Can be incinerated, when in compliance with local regulations. Do not let product enter drains.

Contaminated packaging : Empty remaining contents. Do not burn, or use a cutting torch on, the empty drum. Risk of explosion. Offer rinsed packaging material to local recycling facilities. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

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European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION 14: Transport information

14.1. UN number

1170

14.2. UN proper shipping name

ADR : ETHANOL SOLUTION
RID : ETHANOL SOLUTION
IMDG : ETHANOL SOLUTION

14.3. Transport hazard class(es)

ADR-Class : 3
(Labels; Classification Code; Hazard Identification Number; Tunnel restriction code) 3; F1; 30; (D/E)
RID-Class : 3
(Labels; Classification Code; Hazard Identification Number) 3; F1; 30
IMDG-Class : 3
(Labels; EmS) 3; F-E, S-D

14.4. Packaging group

ADR : III
RID : III
IMDG : III

14.5. Environmental hazards

Environmentally hazardous according to ADR : no
Environmentally hazardous according to RID : no
Marine Pollutant according to IMDG-Code : no

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

SECTION 15: Regulatory information

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

Data for the product

EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC)	:	Point Nos.: 40
WGK (DE)	:	WGK 1: slightly hazardous to water; (according AwSV)
German Störfallverordnung	:	Falls under the German StörfallV. P5c (*This applies for normal storage conditions. Please check hazard categories P5a and P5b for storage conditions/ processing conditions under pressure or in cases of high temperature.)
Directive 2010/75/EU	:	100 %
Other regulations	:	Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG). Take note of the national regulations on the protection of young people at work. This product, delivered to the European Economic Area, is compliant with Regulation (EC) 1907/2006 (REACH) as every substance/monomer it is composed of is excluded from regulation or exempted from registration or have been registered in the supply chain. Please note, that REACH requirements still might apply to import, re-import or specific uses.

Component:	ethanol	CAS-No. 64-17-5
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EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC)	:	Point Nos.: , 3; Listed
		Point Nos.: , 40; Listed

15.2. Chemical safety assessment

no data available

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.

Abbreviations and Acronyms

AU AIICL	Australia. Industrial Chemicals Act (AIIC) List
BCF	bioconcentration factor
BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
DSL	Canada. Environmental Protection Act, Domestic Substances List
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ENCS (JP)	Japan. Kashin-Hou Law List
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IECSC	China. Inventory of Existing Chemical Substances
INSQ	Mexico. National Inventory of Chemical Substances
ISHL (JP)	Japan. Inventory of Industrial Safety & Health
KECI (KR)	Korea. Existing Chemicals Inventory
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NDSL	Canada. Environmental Protection Act. Non-Domestic Substances List
NLP	no-longer polymer
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
NZIOC	New Zealand. Inventory of Chemicals
OECD	Organisation for Economic Cooperation and Development

Further information

Key literature references and sources for data	:	Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National

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regulations for the training of workers in the handling of hazardous materials must be adhered to.

|| Indicates updated section.

The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.

The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.