

SAFETY DATA SHEET

SUN WA Frost -30

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

1.1. Product identifier

<i>Trade name:</i>	SUN WA Frost -30
▼ <i>Product no.:</i>	600188-60, 600188
<i>Unique formula identifier (UFI):</i>	A612-K0QM-VGRA-M7RD

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

<i>Relevant identified uses of the substance or mixture:</i>	Brandsläckning Koncentrat till släckmedel för WE9CR-A-30 Restricted to professional users.
<i>Uses advised against :</i>	None known.

1.3. Details of the supplier of the safety data sheet

<i>Company and address:</i>	GPBM Nordic AB Sörredsvägen 113 SE-41878 Göteborg
<i>Contact person:</i>	Frank Willy Ottesen
<i>Revision:</i>	06/08/2024
<i>SDS Version:</i>	2.0
<i>Date of previous version:</i>	18/04/2024 (1.0)

1.4. ▼ Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)
General public:
England - Dial 111 to reach NHS 111 (24 hour service)
Scotland - Dial 112 to reach NHS 24 (24 hour service)
Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)
See section 4 "First aid measures".
112 - European emergency number (24/7, anywhere in the EU) to reach emergency medical services or the fire brigade

SECTION 2: HAZARDS IDENTIFICATION

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1. Classification of the substance or mixture

Eye Irrit. 2; H319, Causes serious eye irritation.

2.2. Label elements

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

Hazard pictogram(s):



Signal word:

Warning

Hazard statement(s):

Causes serious eye irritation. (H319)

Precautionary statement(s):

General:

-

Prevention:

Wear face protection/protective gloves/protective clothing. (P280)

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
If eye irritation persists: Get medical advice/attention. (P337+P313)

Storage:

-

Disposal:

-

Hazardous substances:

None known.

Additional labelling:

UFI: A612-K0QM-VGRA-M7RD

2.3. Other hazards

Additional warnings:

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Water	CAS No.: 7732-18-5 EC No.: 231-791-2 UK-REACH: Index No.:	40-60%		
Kalciumklorid	CAS No.: 10043-52-4 EC No.: 233-140-8 UK-REACH: Index No.: 017-013-00-2	20 - 40 %	Eye Irrit. 2, H319	
Morfolin	CAS No.: 110-91-8 EC No.: 203-815-1	< 0,1 %	Flam. Liq. 3, H226 Acute Tox. 4, H302	[1]

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

	UK-REACH: Index No.:		Acute Tox. 3, H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Acute Tox. 3, H331	
Kaliumhydroxid	CAS No.: 1310-58-3 EC No.: 215-181-3 UK-REACH: Index No.: 019-002-00-8	< 0,1 %	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information:

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation:

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact:

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact:

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion:

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns:

Not applicable.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous

substances at the area of exposure.

Eye contact:

Irritation, burning, lachrymation, blurred vision after liquid splash.

Skin contact:

Prolonged contact can cause redness and irritation.

Spray mist can irritate the respiratory system.

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

If eye irritation persists: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Irrelevant. The product is an extinguishing agent.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material: Keep only in original packaging.

Storage conditions: No specific requirements

Incompatible materials: Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Morfolin

Long term exposure limit (8 hours) (ppm): 10

Long term exposure limit (8 hours) (mg/m³): 36

Short term exposure limit (15 minutes) (ppm): 20

Short term exposure limit (15 minutes) (mg/m³): 72

Annotations:

Sk = Can be absorbed through the skin and lead to systemic toxicity.

Kaliumhydroxid

Short term exposure limit (15 minutes) (mg/m³): 2

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.

EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

Kalciumklorid

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Inhalation	5 mg/m ³
Short term – Systemic effects - Workers	Inhalation	10 mg/m ³

Kaliumhydroxid

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Inhalation	1 mg/m ³

Morfolin

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	1,04 mg/kg bw/day
Long term – Local effects - Workers	Inhalation	36 mg/m ³
Long term – Systemic effects - Workers	Inhalation	91 mg/m ³

PNEC

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

Morfolin

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		0,1 mg/L
Freshwater sediment		0.49 mg/kg
Marine water		0.01 mg/L
Sewage treatment plant		10 mg/L
Soil		0,239 mg/kg
Water		0,28 mg/L

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations:

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios:

There are no exposure scenarios implemented for this product.

Exposure limits:

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures:

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked. Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures:

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure:


No specific requirements.

Individual protection measures, such as personal protective equipment

Generally:


Use only UKCA marked protective equipment.

Respiratory Equipment:




Work situation	Type	Class	Colour	Standards	
	No special when used as intended.				
When there is risk of formation of mist/aerosol	Combination filter A/P2			EN14387	

Skin protection:


According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

Hand protection:

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Neoprene (Neoprene)	≥0,3	480	EN374, EN420	
Latex	≥0,3	480	EN374, EN420	
Vinyl/PVC	≥0,3	480	EN374, EN420	

Eye protection:

Type	Standards	
Face shield alternatively safety glasses with side shields.	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<i>Physical state:</i>	Liquid
<i>Colour:</i>	Yellowish
<i>Odour / Odour threshold:</i>	Faint
<i>pH:</i>	-
<i>pH in solution:</i>	8,7 - 9,4 (25%)
<i>Density (g/cm³):</i>	-
<i>Relative density:</i>	> 1
<i>Bulk density (kg/m³):</i>	1230
<i>Kinematic viscosity:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Particle characteristics:</i>	Does not apply to liquids.

Phase changes

<i>Melting point/Freezing point (°C):</i>	- 29 °C
<i>Softening point/range (°C):</i>	Does not apply to liquids.
<i>Boiling point (°C):</i>	100 °C

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

<i>Vapour pressure:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Relative vapour density:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Decomposition temperature (°C):</i>	Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

<i>Flash point (°C):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Flammability (°C):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Auto-ignition temperature (°C):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Lower and upper explosion limit (% v/v):</i>	Testing not relevant or not possible due to the nature of the product.

Solubility

<i>Solubility in water:</i>	Testing not relevant or not possible due to the nature of the product.
<i>n-octanol/water coefficient (LogKow):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Solubility in fat (g/L):</i>	Testing not relevant or not possible due to the nature of the product.

9.2. Other information

<i>Oxidizing properties:</i>	Not oxidizing.
<i>Other physical and chemical parameters:</i>	No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Product/substance	Kalciumklorid
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	2301 mg/kg

Product/substance	Kalciumklorid
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	>5000 mg/kg

Product/substance	Morfolin
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	1910 mg/kg

Product/substance	Morfolin
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	500 mg/kg

Product/substance	Morfolin
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	8 mg/L

Product/substance	Kaliumhydroxid
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	333 mg/kg

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

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.

11.2. Information on other hazards

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

Spray mist can irritate the respiratory system.

Eye contact:

Irritation, burning, lachrymation, blurred vision after liquid splash.

Skin contact:

Prolonged contact can cause redness and irritation.

The product irritates mucous membranes and can cause stomach upset if swallowed.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Based on available data, the classification criteria are not met.

12.3. Bioaccumulative potential

Based on available data, the classification criteria are not met.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

12.7. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product is covered by the regulations on hazardous waste. (*)

HP 4 - Irritant (skin irritation and eye damage)

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

06 03 14 Solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: REGULATORY INFORMATION

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

Restrictions for application:

Restricted to professional users.

Demands for specific education:

No specific requirements.

SEVESO - Categories / dangerous substances:

Not applicable.

UK-REACH, Annex XVII

According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

Not applicable.

Additional information:

Not applicable.

Sources:

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

Chemical safety assessment has been carried out for the following substances in the mixture:
CAS 110-91-8

SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3

H226, Flammable liquid and vapour.

H290, May be corrosive to metals.

H302, Harmful if swallowed.

H311, Toxic in contact with skin.

H314, Causes severe skin burns and eye damage.

H318, Causes serious eye damage.

H319, Causes serious eye irritation.

H331, Toxic if inhaled.

▼ Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

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

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWG = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The safety data sheet is validated by

Kiwa Technical Consulting AB

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en