SAFETY DATA SHEET

WEST FROST

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

1.1. Product identifier

Trade name

WEST FROST

▼Product no.

FC305, FC407, FC504

Unique formula identifier (UFI)

9N8W-G0K1-C00E-HJHV

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

Relevant identified uses of the substance or mixture

Antifreeze

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Wilhelmsen Chemicals AS
Kirkeveien 578
3143 Kjøpmannskjær
Norway
T: +47 33351500

Contact person

Wilhelmsen Chemicals AS

E-mail

WIC.KMS.QHSE@wilhelmsen.com

▼Revision

18/09/2026

▼SDS Version

4.0

▼Date of previous version

08/04/2025 (3.0)

1.4. Emergency telephone number

In urgent situations: Call 113 and request the poison information centre. (24h service)
Poison Center at Tel.: + 47 22 59 13 00
See section 4 on 'First Aid Measures'

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP).

2.1. Classification of the substance or mixture

Flam. Liq. 2; H225, Highly flammable liquid and vapour.
Eye Irrit. 2; H319, Causes serious eye irritation.
STOT SE 3; H336, May cause drowsiness or dizziness.

2.2. ▼Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Highly flammable liquid and vapour. (H225)
Causes serious eye irritation. (H319)
May cause drowsiness or dizziness. (H336)

▼Precautionary statement(s)

General

Keep out of reach of children. (P102)

Prevention

Wash hands thoroughly after handling. (P264)
Wear protective gloves/protective clothing/eye protection/face protection. (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

Store in a well-ventilated place. Keep cool. (P403+P235)

▼Disposal

Dispose of contents/container in accordance with local regulation. (P501)

Hazardous substances

propan-2-ol

Additional labelling

UFI: 9N8W-G0K1-C00E-HJHV

2.3. Other hazards

Additional warnings

The material contains peroxide forming substances, which can form hazardous levels of peroxides e.g. during distillation, evaporation or extraction.
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) 2023/707.

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
propan-2-ol	CAS No.: 67-63-0 EC No.: 200-661-7 REACH: 01-2119457558-25-XXXX Index No.: 603-117-00-0	60 - 100 %	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	CAS No.: 95-38-5 EC No.: 202-414-9 REACH: 01-2120768426-45-XXXX Index No.:	<1%	Acute Tox. 4, H302 (ATE: 1265,00 mg/kg) Skin Corr. 1, H314 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	

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

Other information

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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

IF INHALED: Move to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or a doctor.

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

Rinse with water until pain stops then continue to rinse for 30 minutes.

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.
Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Highly flammable liquid and vapour.
In use may form flammable/explosive vapour-air 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.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Carbon oxides (CO / CO2)

5.3. Advice for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face mask.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.
Ensure adequate ventilation, especially in confined areas.
Avoid inhalation of vapours from spilled material.
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

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.
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

Ground and bond container and receiving equipment.
Use explosion-proof electrical/lighting/ventilating equipment.
Use non-sparking tools.
Take action to prevent static discharges.
The product should be tested for peroxides before distillation or evaporation and tested for peroxide formation or discarded after 1 year.
Peroxide formation may be present anywhere in the container, including the sides, bottom, exterior and threaded cap.
Peroxide formation in ppm concentrations may not be visually observable and must be identified through the use of appropriate testing procedures. If any of the following conditions exist, the material may be explosively unstable and will require stabilization prior to use:
1. Material appears to be degraded and or contaminated.
2. Material appears to be discolored.
3. Deterioration or distortion of storage container.
4. Thermal shock (sunlight).
5. Age of material exceeds recommended storage time.
Avoid contact during pregnancy and while nursing.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Take action to prevent static discharges.
Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Recommended storage material

Always store in containers of the same material as the original container.

Storage conditions

Store cool and dry in tightly closed containers.
Store in a well ventilated place.

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

propan-2-ol
Long term exposure limit (8 hours) (mg/m³): 245
Long term exposure limit (8 hours) (ppm): 100

Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents (Regulations concerning Action and Limit values) FOR-2011-12-06-1358. Last update: FOR-2026-04-10-580.

DNEL

No data available.

PNEC

No data available.

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 CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
Ensure adequate general and local exhaust ventilation.			
At high concentrations, suitable respiratory protection must be used. Gas filter for organic substances.			

Skin protection

Recommended	Type/Category	Standards
Remove contaminated, soaked clothing immediately. Soiled clothing must be washed before reuse. Use appropriate protective clothing for protection in case of possible skin contact.		

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
There is no glove material or combination of materials that will provide unlimited protection to any individual chemical or combination of chemicals. The penetration time must be longer than the usage of the product. The exact shelf life for each individual glove must be clarified with the glove manufacturer and adhered to. The gloves must be replaced regularly, and immediately if there are signs of damage to the glove material. Choose gloves according to the concentration and exposure time to the chemical. For prolonged and intensive contact, protection class 6 is recommended, with more than 480 minutes of wear resistance, glove thickness: 0.7 mm. Use gloves that have been tested according to EN374. Recommended, gloves (breakthrough time) > 4-8 hours: Nitrile, Neoprene, Natural rubber, Viton or PVC.	>0,4 mm	> 240 - 480 min	EN 374	

Eye protection

Type	Standards	
Use EN-approved safety glasses.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Blue

Odour / Odour threshold

Alcohol odor

pH
Not applicable - pH is not defined for non-aqueous systems
Density (g/cm^3)
-
Relative density
0,79 (20 °C)
Kinematic viscosity
Not applicable
Particle characteristics
Not applicable - product is a liquid

Phase changes
Melting point/Freezing point (°C)
No data available
Softening point/range (°C)
Ikke relevant - produktet er en væske
Boiling point (°C)
~ 82 °C
Vapour pressure
No data available
Relative vapour density
No data available
Decomposition temperature (°C)
No data available

Data on fire and explosion hazards
Flash point (°C)
~ 12 °C
Flammability (°C)
~ 400
Auto-ignition temperature (°C)
No data available
Lower and upper explosion limit (% v/v)
No data available

Solubility
Solubility in water
Soluble
n-octanol/water coefficient (LogKow)
Not relevant for a mixture
Solubility in fat (g/L)
No data available

9.2. Other information
Evaporation rate (n-butylacetate = 100)
No data available
Other physical and chemical parameters
No data available.
Oxidizing properties
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

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.
Risk of formation of explosive peroxides when distilled, evaporated or otherwise concentrated.
Avoid heat, flames and other sources of ignition.
Static electricity

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Causes serious eye irritation.

Respiratory sensitization

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

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

May cause drowsiness or dizziness.

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.

▼Symptoms related to the physical, chemical and toxicological characteristics

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.
Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

11.2. Information on other hazards

Endocrine disrupting properties

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

Other information

propan-2-ol has been classified by IARC as a group 3.

SECTION 12: Ecological information

12.1. ▼Toxicity

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

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.

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

To the extent the material has not been subject to regular tests of peroxide formation the waste shall be treated as explosive waste.

HP 3 - Flammable

HP 4 - Irritant (skin irritation and eye damage)

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

Disposal to the sewer is discouraged.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

07 01 04* Other organic solvents, washing liquids and mother liquors

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/ADN/RID	UN1219	ISOPROPANOL (ISOPROPYL ALCOHOL)	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	Limited quantities: 1 L Tunnel restriction code: (D/E) See below for additional information.
IMDG	UN1219	ISOPROPANOL (ISOPROPYL ALCOHOL)	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	Limited quantities: 1 L EmS: F-E S-D See below for additional information.
IATA	UN1219	ISOPROPANOL (ISOPROPYL ALCOHOL)	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	See below for additional information.

▼Additional information

This product is within scope of the regulations of transport of dangerous goods.

ADR/ADN/RID / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

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
People under the age of 18 shall not be exposed to this product.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education
No specific requirements.

SEVESO - Categories / dangerous substances
P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lower-tier): 5.000 tonnes / (upper-tier): 50.000 tonnes

REACH, Annex XVII
propan-2-ol is subject to REACH restrictions (entry 40).

Product registration number
600498

Declaration of chemicals
If the product is imported or produced in more than 100 kg/year it is subject to registration in the Product Register because it is classified as hazardous.

Additional information
Tactile warning.

Sources
Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.
Act no. 62 of 17th June 2005 relating to working environment, working hours and employment protection, etc. (Working Environment Act).
Regulation of 1 July 2016 no. 569 on measures to prevent and limit the consequences of major accidents in companies where hazardous chemicals occur (the Major Accidents Regulations).
Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.
Regulation of 15 May 2015 no. 541 on declaring chemicals to the product register (Declaration Regulations)
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 (CLP).
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).

15.2. Chemical safety assessment
No

SECTION 16: Other information

▼Full text of H-phrases as mentioned in section 3
H225, Highly flammable liquid and vapour.
H302, Harmful if swallowed.
H314, Causes severe skin burns and eye damage.
H319, Causes serious eye irritation.
H336, May cause drowsiness or dizziness.
H373, May cause damage to organs through prolonged or repeated exposure.
H400, Very toxic to aquatic life.
H410, Very toxic to aquatic life with long lasting effects.

▼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
EC = Effective concentration
ED = Effective dose
EINECS = European Inventory of Existing Commercial chemical Substances
EL = Effective Loading
ErC = Concentration associated with x% growth rate response
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
GWP = Global warming potential
HP = Hazardous Property code
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IC = X maximum inhibitory concentration
IMDG = International Maritime Dangerous Goods
LC = Lethal concentration
LCLo = Value is the lowest concentration of a material in air reported to have caused the death of animals or humans
LD = Lethal dose
LOAEC = Lowest Observed Adverse Effect Concentration
LOAEL = Lowest Observed Adverse Effect Level
LOEC = Lowest Observed Effect Concentration
LogKow = logarithm of the n-octanol/water coefficient
LL = Lethal Loading
M = For multiplication factor
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
NOAEC = No Observed Adverse Effect Concentration
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
NOELR = No Observable Effect Loading Rate
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
UVCB = 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 mixture in regard of health hazards is in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).
The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

Product Compliance Advisor

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: NO-en