

SAFETY DATA SHEET

NOFO Hand Sanitizer Rhubarb

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

1.1. Product identifier

Trade name

NOFO Hand Sanitizer Rhubarb

Product no.

RU8586102

Unique formula identifier (UFI)

UYVR-4KSR-7001-K8PU

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

Relevant identified uses of the substance or mixture

Mixture for hand disinfection

▼ Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Hardford AB

Post: Box 1213 Street: Norra Svedengatan 30

Post: 581 12 Street:58273 Linköping

Sweden

Tel: +46 13-233100

<https://hardford.se>

E-mail

info@hardford.se

Revision

28/02/2023

SDS Version

2.0

Date of previous version

12/04/2021 (1.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

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.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

▼ Hazard statement(s)

Highly flammable liquid and vapour. (H225)

Causes serious eye irritation. (H319)

Safety statement(s)

▼ General

Keep out of reach of children. (P102)

▼ **Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)
Keep container tightly closed. (P233)

▼ **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)

▼ **Storage**

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

▼ **Disposal**

Dispose of contents and container according to local, regional, national and international regulations. (P501 .)

Hazardous substances

Ethanol
Propan-2-ol

▼ **Additional labelling**

Active substance(s):
Ethanol (63.6 g/100g)
UFI: UYVR-4KSR-7001-K8PU

2.3. Other hazards

▼ **Additional warnings**

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

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
Ethanol	CAS No.: 64-17-5 EC No.: 200-578-6 UK-REACH: Index No.: 603-002-00-5	60-80%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 (SCL: 50.00 %)	
Propan-2-ol	CAS No.: 67-63-0 EC No.: 200-661-7 UK-REACH: Index No.: 603-117-00-0	5-10%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	

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

▼ **Other information**

-

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

Upon irritation of the eye: Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. 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

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

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.

Hazchem Code: ●3YE

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.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

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

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/lighting/ventilating] equipment.

Use non-sparking tools.

Take action to prevent static discharges.

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 temperature

Dry, cool and well ventilated

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

Ethanol

Long term exposure limit (8 hours) (ppm): 1000

Long term exposure limit (8 hours) (mg/m³): 1920

Propan-2-ol

Long term exposure limit (8 hours) (ppm): 400

Long term exposure limit (8 hours) (mg/m³): 999

Short term exposure limit (15 minutes) (ppm): 500

Short term exposure limit (15 minutes) (mg/m³): 1250

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

Ethanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	206 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	343 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	114 mg/m ³
Long term – Systemic effects - Workers	Inhalation	380 mg/m ³
Short term – Local effects - General population	Inhalation	950 mg/m ³
Short term – Local effects - Workers	Inhalation	1900 mg/m ³
Long term – Systemic effects - General population	Oral	87 mg/kg bw/day

Propan-2-ol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	319 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	888 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	89 mg/m ³
Long term – Systemic effects - Workers	Inhalation	500 mg/m ³
Short term – Systemic effects - General population	Inhalation	178 mg/m ³
Short term – Systemic effects - Workers	Inhalation	1000 mg/m ³
Long term – Systemic effects - General population	Oral	26 mg/kg bw/day
Short term – Systemic effects - General population	Oral	51 mg/kg bw/day

▼ PNEC

Ethanol

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		960 µg/L
Freshwater sediment		3.6 mg/kg
Intermittent release (freshwater)		2.75 mg/L
Marine water		790 µg/L
Marine water sediment		2.9 mg/kg
Predators		380-720 mg/kg
Sewage treatment plant		580 mg/L
Soil		630 µg/kg
Propan-2-ol		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		140.9 mg/L
Freshwater sediment		552 mg/kg
Intermittent release (freshwater)		140.9 mg/L
Marine water		140.9 mg/L
Marine water sediment		552 mg/kg
Predators		160 mg/kg
Sewage treatment plant		2.251 g/L
Soil		28 mg/kg

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.

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. Always wash 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

No specific requirements

▼ Skin protection

No specific requirements.

▼ Hand protection

No specific requirements.

Eye protection

Type	Standards
In the likelihood of direct or incidental exposure, use face protection.	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Colourless

▼ Odour / Odour threshold

Alcohol odor

pH

6,2 - 7,2 (20 °C)

Density (g/cm³)

0.85 - 0.91

▼ Kinematic viscosity

Testing not relevant or not possible due to the nature of the product.

▼ Particle characteristics

Does not apply to liquids.

Phase changes

▼ Melting point/Freezing point (°C)

Testing not relevant or not possible due to the nature of the product.

▼ Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

>36

▼ Vapour pressure

Testing not relevant or not possible due to the nature of the product.

▼ Relative vapour density

Testing not relevant or not possible due to the nature of the product.

▼ Decomposition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

▼ Flash point (°C)

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▼ Flammability (°C)

The material is ignitable.

▼ Auto-ignition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

▼ Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to the nature of the product.

Solubility

▼ Solubility in water

Completely soluble

▼ n-octanol/water coefficient

Testing not relevant or not possible due to the nature of the product.

▼ Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

▼ Other physical and chemical parameters

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

Avoid static electricity.

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

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	Ethanol
Species:	Rat
Route of exposure:	Oral
Test:	LD ₅₀
Result:	7060 mg/kgbw

Product/substance	Ethanol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC ₅₀ (10 hours)
Result:	38400 mg/m ³

Product/substance	Propan-2-ol
Species:	Rat
Route of exposure:	Oral
Test:	LD ₅₀
Result:	5840 mg/kgbw

Product/substance	Propan-2-ol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD ₅₀
Result:	13900 mg/kgbw

Product/substance	Propan-2-ol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC ₅₀
Result:	10000 ppm

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.

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.

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.

▼ Endocrine disrupting properties

Not applicable.

▼ Other information

Ethanol has been classified by IARC as a group 1 carcinogen.

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

SECTION 12: Ecological information

12.1. ▼ Toxicity

Product/substance	Ethanol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	13000 mg/L

Product/substance	Ethanol
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	>10000 mg/L

Product/substance	Propan-2-ol
Species:	Fish, Pimephales promelas
Duration:	48 hours
Test:	LC50
Result:	9640 mg/L

Product/substance	Propan-2-ol
Species:	Daphnia, Daphnia magna
Duration:	48 hours
Test:	EC50
Result:	10000 mg/L

Product/substance	Propan-2-ol
Species:	Algae
Duration:	7 days
Test:	EC50
Result:	1800 mg/L

12.2. ▼ Persistence and degradability

Product/substance	Ethanol
Biodegradable:	Yes
Test method:	OECD 301 D
Result:	

Product/substance	Propan-2-ol
Biodegradable:	Yes
Test method:	
Result:	

12.3. ▼ Bioaccumulative potential

Product/substance	Ethanol
Test method:	
Potential bioaccumulation:	No
LogPow:	No data available.
BCF:	No data available.
Other information:	

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

Product/substance Propan-2-ol
 Test method:
 Potential bioaccumulation: No
 LogPow: 0.05
 BCF: No data available.
 Other information:

12.4. ▼ Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. ▼ Endocrine disrupting properties

Not applicable.

12.7. ▼ Other adverse effects

None known.

SECTION 13: Disposal considerations

▼ Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 3 - Flammable

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

Not applicable.


▼ Specific labelling

Not applicable.

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	UN1987	ALCOHOLS, N.O.S.	Class: 3 Labels: 3 Classification code: F1 	II	No	Limited quantities: 1 L Tunnel restriction code: (D/E) See below for additional information.
IMDG	UN1987	ALCOHOLS, N.O.S.	Class: 3 Labels: 3 Classification code: F1 	II	No	Limited quantities: 1 L EmS: F-E S-D See below for additional information.
IATA	UN1987	ALCOHOLS, N.O.S.	Class: 3 Labels: 3 Classification code: F1 	II	No	See below for additional information.

* Packing group

** Environmental hazards

▼ Additional information

ADR / 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.

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

Hazchem Code: ●3YE

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

Biocidal Products Regulations

Product type: PT1 - Human hygiene

▼ Restrictions on use

-

▼ Directions for use and dose rate

-

▼ Additional information

-

Additional information

Tactile warning.

▼ Sources

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Control of Major Accident Hazards (COMAH) Regulations 2015.

In accordance with Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products as retained and amended in UK law.

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

No

SECTION 16: Other information

▼ Full text of H-phrases as mentioned in section 3

H225, Highly flammable liquid and vapour.

H319, Causes serious eye irritation.

H336, May cause drowsiness or dizziness.

▼ 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
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
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
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 to 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 classification of the mixture in regard to physical hazards has been based on experimental data.

▼ **The safety data sheet is validated by**

Ulf Eriksson

Other

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