



# SAFETY DATA SHEET

[Prepared in accordance with Regulation EC 1907/2006 (REACH), as amended d.]

## Section 1: Identification of the substance / mixture and identification of the substance / mixture

### 1.1 Product identifier

**Antiviral liquid for disinfecting the skin of Hendi's hands**

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

Identified uses: liquid for hygienic hand disinfection and disinfection of surfaces (also in contact with food).

Uses advised against: undefined.

### 1.3 Details of the supplier of the safety data sheet

Provider: **Hendi Polska Sp. z o. o**

Address: ul. Magazynowa 5, 62-023 Gydki, Poland

Telephone: +48 6165870 00 / +48 61 65870 01

E-mail address of the person responsible for the safety data sheet: biuro@theta-doradztwo.pl

### 1.4 Emergency telephone number

112 (general emergency telephone), 998 (fire department), 999 (medical emergency)

Toxicological Information Centers: +58 682 04 04 (Gdańsk), +12 411 99 99 (Kraków), +61 847 69 46 (Poznań),

+ 48 607 218 174 (Warsaw)

## Section 2: Hazard identification

### 2.1 Classification of the substance or mixture

**Flam. Liq. 2 H225, Eye Irrit. 2 H319**

Highly flammable liquid and vapor. Irritating to eyes.

### 2.2 Label elements

Hazard pictograms and signal word



**DANGER**

Names of hazardous ingredients on the label

There is not.

Hazard statements

H225 Highly flammable liquid and vapor.

H319 Irritating to eyes.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep away from children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing.

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

P501 Dispose of contents / container to properly labeled waste containers in accordance with national regulations.

### 2.3 Other hazards

The components of the mixture do not meet the PBT or vPvB criteria according to Annex XIII of the REACH Regulation.



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## Section 3: Section / information of the yield

### 3.1 Substances

Not applicable.

### 3.2 Mixtures

#### ethanol

Concentration range: <75%  
 CAS number: 64-17-5  
 EC number: 200-578-6  
 Index number: 603-002-00-5  
 Appropriate registration number: 01-2119457610-43-XXXX  
 Classification: Substance with a nationally defined occupational exposure limit. Flam. Liq. 2 H225, Eye Irrit. 2 H319

#### butan-2-one

Concentration ranges: <1%  
 CAS number: 78-93-3  
 EC number: 201-159-0  
 Index number: 606-002-00-3  
 Registration number as appropriate: 01-2119457290-43-XXXX  
 Classification: Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336  
 Additional classification phrase: EUH066  
 Substance with the highest permissible concentration in the work environment defined at the national and EU level.

#### propan-2-ol

Concentration ranges: <1%  
 CAS number: 67-63-0  
 EC number: 200-661-7  
 Index number: 603-117-00-0  
 The proper registration number: 01-2119457558-25-XXXX  
 Classification: Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336  
 Substance with a nationally defined maximum environmental concentration value work.

#### glycerol

Concentration range: <1%  
 CAS number: 56-81-5  
 EC number: 200-289-5  
 Index number: -  
 The proper registration number: -  
 Classification: the substance is not classified as hazardous  
 Substance with a nationally defined maximum environmental concentration value work.  
 Full text of H-phrases in section 16.

## Section 4: Precautionary measures

### 4.1 Description of first aid measures

On skin contact: the product can also be used on the skin.



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Eye contact: rinse with plenty of clean water for several minutes. Protect non-irritated eye, remove contact lenses. Consult an ophthalmologist in case of disturbing symptoms.

In case of ingestion: do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a doctor if disturbing symptoms occur.

After inhalation: remove the sufferer to fresh air, keep warm and at rest. Consult a doctor if disturbing symptoms occur.

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

Skin contact: skin reddening, drying out in case of prolonged contact.

Eye contact: redness, irritation.

### 4.3 Indication of any immediate medical attention and special treatment with the victim

The decision on how to proceed with the rescue is made by the doctor after a thorough assessment of the injured person's condition. Treat symptomatically.

## Section 5: Fire treatment

### 5.1 Extinguishing media

Suitable extinguishing media: CO<sub>2</sub>, dry powder, water spray jet, alcohol-resistant foam.

Unsuitable extinguishing media: direct stream of water - danger of fire spreading.

### 5.2 Special hazards related to the substance or mixture

During combustion, harmful gases may be formed, including carbon monoxides and other unidentified products of thermal decomposition. Inhalation of combustion products should be avoided as they may be hazardous to health.

### 5.3 Advice for firefighters

Highly flammable liquid and vapor. Product vapors can form explosive mixtures with air. Product vapors are heavier than air, they accumulate at the ground surface, in the lower parts of rooms and in depressions of the ground. Cool endangered containers with water spray jet. General protection measures typical in case of fire. Do not stay in the fire-endangered area without appropriate chemical-resistant clothing and self-contained breathing apparatus.

## Section 6: Completion of the flow of sweetheart

### 6.1 Personal precautions, protective equipment and emergency procedures

Limit the access of bystanders to the endangered area until appropriate cleaning operations are completed. Make sure that the failure and its effects are removed only by trained personnel.

In case of large spills, isolate the endangered area. Avoid contact with skin and eyes. Remove sources of fire and heat. Announce a smoking ban. Attention! risk of slipping on released product. Collect used extinguishing media. Do not let them get into surface waters, groundwater and soil.

### 6.2 Environmental precautions

In the event of release of larger amounts of the product, steps should be taken to prevent it from spreading into the environment. Notify the appropriate emergency services.

### 6.3 Methods and materials preventing the spread of contamination and used for cleaning up

Collect the product with non-flammable materials absorbing liquids (e.g. sand, earth, universal binders, silica, etc.) and place in labeled containers. Treat the collected material as waste. Clean and ventilate the contaminated place.

### 6.4 Reference to other sections

Appropriate conduct with waste product - see section 13. Personal protection measures - see section 8.



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## Section 7: Handling substances and their risks

### 7.1 Precautions for safe handling

Work in accordance with the safety and hygiene rules. Do not eat, drink or smoke in the workplace. Avoid eye contamination. Provide adequate ventilation. Do not allow vapors to concentrate in the air. Eliminate sources of ignition - do not use open fire.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in dry, cool and well-ventilated rooms, in tightly closed original containers. Keep away from food, animal feed and incompatible products (see subsection 10.5). Protect against direct sunlight, sources of fire. Packages that have already been opened should be sealed and stored in an upright position to avoid leakage.

### 7.3 Specific end use (s)

No information on uses other than those mentioned in subsection 1.2.

## Section 8: Don't risk / personal protection measures

### 8.1 Control parameters

Specification	NDS	NDSch	NDSP	DSB
ethanol [CAS 64-17-5]	1,900 mg / m <sup>3</sup>	-	-	-
propan-2-ol * [CAS 67-63-0]	900 mg / m <sup>3</sup>	1200 mg / m <sup>3</sup>	-	-
butan-2-one * [CAS 78-93-3]	450 mg / m <sup>3</sup>	900 mg / m <sup>3</sup>	-	-
glycerol - inhalable fraction [CAS 56-81-5]	10 mg / m <sup>3</sup>	-	-	-

\* skin contact exposure is as important as inhalation exposure.

Legal basis: Journal Of Laws 2018, item 1286 with later d.

#### Recommended monitoring procedures

Procedures for monitoring concentrations of hazardous components in the air and procedures for air purity control in the workplace should be applied - if available and justified at a given position - in accordance with the relevant Polish or European Standards, taking into account the conditions prevailing at the site of exposure and the appropriate measurement methodology adapted to the conditions. work.

The mode, type and frequency of tests and measurements should meet the requirements of the Regulation of the Minister of Health of February 2, 2011. (Journal of Laws 2011, No. 33, item 166, as amended).

#### DNEL values

ethanol [CAS 64-17-5]

Employees				
Exposure route	Acute, systemic	Spicy, local	Chronic, systemic	Chronic, local
Inhalative		1900 mg / m <sup>3</sup>	950 mg / m <sup>3</sup>	
Leather			343 mg / kg	
Consumers				
Exposure route	Acute, systemic	Spicy, local	Chronic, systemic	Chronic, local
Inhalative		950 mg / m <sup>3</sup>	114 mg / m <sup>3</sup>	
Leather			206 mg / kg	
Food			87 mg / kg	



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## PNEC values

ethanol [CAS 64-17-5]

sweet water: 0.96 mg / l

sea water: 0.79 mg / l

l fresh water sediment: 3.6 mg / kg

seawater sediment: 2.9 mg / kg

sewage treatment plant: 580 mg / l

occasional release: 2.75 mg / l

soil: 0.63 mg / kg

## 8.2. Exposure controls

Observe the general rules of safety and hygiene. Do not eat, drink or smoke while working. Wash hands thoroughly before breaks and after work. Avoid contact with the eyes and prolonged contact with the skin. Take off contaminated clothing and wash it before reuse. Provide adequate ventilation in the workplace. If during the work processes there is a risk of fire on the employee's clothing - not more than 20 m in a horizontal line from the stations where these processes are performed, emergency showers (safety showers) for washing the whole body and separate showers for washing eyes should be installed. .

### Hand and body protection

In case of prolonged contact with the skin, use protective gloves resistant to the product when disinfecting the surface. The material for gloves should be selected individually at the workplace. Use protective gloves with the effectiveness level 2 or higher (breakthrough time > 30 minutes). Use protective clothing.

When using protective gloves in contact with chemical products, it should be remembered that the stated effectiveness levels and the corresponding breakthrough times do not represent the actual protection time at a given workplace, because this protection is influenced by many factors, such as temperature, the influence of other substances, etc. It is recommended that gloves be replaced immediately if there are any signs of wear, damage or change in appearance (color, flexibility, shape). The manufacturer's instructions should be followed not only for the use of gloves, but also for cleaning, maintenance and storage. It is also important to remove the gloves correctly so as to avoid contamination of your hands while doing this.

### Eye protection

Recommended safety glasses if there is a risk of eye contamination.

### Respiratory protection

Not required with proper ventilation. In the event of a failure, exceeding the TLV, use appropriate respiratory protection equipment.

The personal protective equipment used must meet the requirements of Regulation 2016/425 / EU. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning.

### Environmental exposure controls

Avoid dumps to the environment, do not introduce large amounts to the sewage system.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

physical state:	liquid
color: odor: odor	by assortment
threshold: pH	characteristic
value: melting	not marked
point / freezing	not marked
point:	not marked



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initial boiling point	> 35 ° C
and boiling range: flash point:	<23 ° C
evaporation rate: flammability	not marked
(solid, gas): upper / lower	not applicable
explosion limit: vapor pressure:	15 vol.% / 3.5% vol. (ethanol)
vapor density: density: solubility:	not marked
partition coefficient: n-octanol / water:	not marked
auto-ignition temperature: decomposition	not marked
temperature: Explosive properties:	not marked
Oxidizing properties: Viscosity:	dissolves in water
	not marked
	not marked
	not marked
	does not show
	does not show
	not marked

### 9.2 Other information

No additional research.

## Section 10: Stability and reactivity

### 10.1 Reactivity

Reactive product. Product vapors may form explosive mixtures with air. It does not undergo hazardous polymerization. See also subsections 10.3-10.5.

### 10.2 Chemical stability

The product is stable when properly used and stored.

### 10.3. Possibility of hazardous reactions

Gives off hydrogen by reaction with light metals.

### 10.4 Conditions to avoid

Avoid heat, fire and direct sunlight.

### 10.5 Incompatible materials

Strong oxidizers, light metals.

### 10.6 Hazardous decomposition products

There is not.

## Section 11: Toxicological research

### 11.1 Information on toxicological effects

Information on acute and / or delayed effects of exposure was determined on the basis of information on product classification and / or toxicological tests as well as the manufacturer's knowledge and experience.

#### Component toxicity

##### ethanol [CAS 64-17-5]

LC50 (inhalation)	30,000 mg / m3
LD50 (orally)	10470 mg / kg
LD50 (skin)	15,800 mg / kg

##### butan-2-one [CAS 78-93-3]

LD50 (oral, rat)	3460 mg / kg
LD50 (skin, rabbit)	> 2000 mg / kg



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propan-2-ol [CAS 67-63-0]

LC50 (inhalation, rat) &gt; 10000 ppm / 6h

LD50 (oral, rat) 5840 mg / kg

LD50 (skin, rabbit) &gt; 2000 mg / kg

**Toxicity of the mixture**Acute toxicity

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

Corrosive / irritating effect on the skin

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

Serious eye damage / eye irritation

The product is irritating to the eyes.

Respiratory or skin sensitization

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

Mutagenic effect on reproductive cells Based on

the available data, the classification criteria are not met.

Carcinogenic effect

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

Harmful effect on reproduction

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

Toxic effect on target organs - single exposure

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

Toxic effects on target organs - repeated exposure Based on the available

data, the classification criteria are not met.

Aspiration hazard

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

**Section 12: Informing ecological****12.1 Toxicity****Component toxicity**ethanol [CAS 64-17-5]

Toxicity to fish	Toxicity	LC50	11200 mg / l / 24h / <i>Oncorhynchus mykiss</i>
to aquatic invertebrates	EC50 Toxicity to aquatic invertebrates	EC50	5012 mg / l / 48h / <i>Ceriodaphnia dubia</i> (fresh water)
butan-2-one [CAS 78-93-3]	Toxicity to algae	EC50	857 mg / l / 48h / <i>Artemia salina</i> (sea water)
		EC50	275 mg / l / 72h / <i>Chlorella vulgaris</i>

Toxicity to fish	Toxicity	LC50	2993 mg / l / 96h / <i>Pimephlaes promelas</i>
to daphnia	Toxicity to algae	EC50	308 mg / l / 48h / <i>Daphnia magna</i>
propan-2-ol [CAS 67-63-0]		EC50	1972 mg / l / 72h / <i>Pseudokirchnerella subcapitata</i>

Toxicity to fish	Toxicity	LC50	9640 mg / l / 96h / <i>Pimephlaes promelas</i>
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to daphnia	Toxicity to algae	EC50	> 10000 mg / l / 24h / <i>Daphnia magna</i>
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<b>Toxicity of the mixture</b>		EC50	1800 mg / l / 168h / <i>Scenedesmus quadricauda</i>
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The product is not classified as hazardous to the environment.



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**12.2 Persistence and degradability**

Component data: ethanol

[CAS 64-17-5]

Easily biodegradable substance.

propan-2-ol [CAS 67-63-0]

Easily biodegradable substance.

**12.3 Bioaccumulative potential**

Bioaccumulation is not expected.

**12.4 Mobility in soil**

The product mixes with water and spreads in the aquatic environment.

**12.5 Results of PBT and vPvB assessment**

The components of the mixture do not meet the PBT or vPvB criteria according to Annex XIII of the REACH Regulation.

**12.6 Other adverse effects**

The product does not contribute to global warming and does not deplete the ozone layer.

**Section 1 3: Waste protection****13.1 Waste treatment methods**

Recommendations concerning the mixture: do not empty into the sewage system. Dispose of in accordance with applicable regulations. The waste code should be assigned at the place of its production.

Disposal methods for used packaging: recovery / recycling / disposal of packaging waste should be carried out in accordance with applicable regulations. Only completely emptied packages may be recycled.

EU legal acts: directives of the European Parliament and of the Council: 2008/98 / EC as amended d. and 94/62 / EC as amended d.

National legal acts: Dz. Of Laws of 2013, item 21 as amended d., Journal of Laws 2013 item 888 with later d.

**Section 1 4: Information on transport****14.1 UN number**

UN 1993

**14.2 UN proper shipping name**

FLAMMABLE LIQUID, NOS [ETHANOL]

**14.3 Transport hazard class (es)**

3

**14.4 Packing group**

II

**14.5 Environmental hazards**

The mixture does not pose a threat to the environment in accordance with the criteria included in the transport regulations.

**14.6 Special precautions for users**

Keep away sources of ignition. You should be particularly careful.

**14.7 Transport in bulk according to Annex II to MARPOL and the IBC Code**

Not applicable.





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## Section 1 5: Information on cepr from certified writers

### 15.1 Substance specific safety, health and environmental regulations or mixtures

Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws 2011, No. 63, item 322, as amended).  
 Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws 2018, item 1286, as amended).  
 Waste Act of December 14, 2012 (Journal of Laws 2013, item 21, as amended).  
 Act of June 13, 2013 on the management of packaging and packaging waste (Journal of Laws 2013, item 888, as amended).

Regulation of the Minister of Climate of 2 January 2020 on the waste catalog (Journal of Laws 2020, item 10).  
 Regulation of the Minister of Health of 2 February 2011 on tests and measurements of factors harmful to health in the work environment (Journal of Laws 2011, No. 33, item 166, as amended).

European ADR agreement on the international carriage of dangerous goods by road.

**1907/2006 / EC** Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45 / EC and repealing Council Regulation (EEC) No. 793/93 and No. 1488 / 94, as well as Council Directive 76/769 / EEC and Commission Directive 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC as amended. d.

**1272/2008 / EC** Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC, and amending Regulation (EC) No. 1907/2006 with later d.

**2015/830 / EU** Commission Regulation of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

**2008/98 / EC** Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain directives with amendments. d.

**94/62 / EC** Directive of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste, as amended d.

**2016/425 / EU** Regulation of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686 / EEC.

Act of 9 October 2015 on biocidal products (Journal of Laws of 2015, item 1926).

**528/2012 / EC** Regulation of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products.

### 15.2 Chemical Safety Assessment

Chemical safety assessment is not required for the mixture.

## Section 1 6: Other information

#### ~~Full text of H-phrases mentioned in section 3 of the sheet~~

H225	Highly flammable liquid and vapor.
H319	Irritating to eyes.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

#### ~~Clarification of abbreviations and acronyms~~

NDS	The highest acceptable concentration
NDSch	Highest Permissible Momentary Concentration
NDSP	Highest Permissible Ceiling Concentration
DSB	Permissible concentration in biological material
PBT	Persistent, bioaccumulative and toxic substances
vPvB	The substances are very persistent and very bioaccumulative
Flam. Liq. 2	Flammable liquid, category 2
Eye Irrit. 2	Eye irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
PNEC	Predicted no effect concentration in the environment
DNEL	No effect level



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### Training

Before starting to work with the product, the user should learn the Health and Safety regulations, regarding handling chemicals, and in particular, undergo appropriate workplace training. Persons involved in the transport of hazardous materials, in accordance with the ADR Agreement, should be properly trained in the scope of their duties (general training, on-the-job training and safety training).

### References to key literature and data sources

The data sheet has been developed on the basis of component datasheets, literature data, internet databases as well as knowledge and experience, taking into account the current legal regulations.

### Classification and procedures used to classify the mixture in accordance with Regulation (EC) 1272/2008 [CLP] as amended d.

The classification was made on the basis of the physicochemical data of the mixture and the content of hazardous components by the calculation method based on the guidelines of Regulation 1272/2008 / EC (CLP), as amended.

d.

### Additional information

Person drawing up the card: mgr. Eng. Dominika Gajewska (based on the manufacturer's data).

Card issued by: The above "THETA" Technical Consulting

information is based on currently available data characterizing the product as well as the experience and knowledge of the manufacturer in this field. They do not constitute a quality description of the product or a promise of specific properties. They should be treated as an aid for safe handling in transport, storage and use of the product. This does not release the user from responsibility for the improper use of the above information and from complying with all legal standards in this area.

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