

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/07/2020

Reviewed on 07/07/2020

1 Identification

- **Product identifier**
- **Trade name:** HAND PROTECT
- **Article number:** R 02.0064
- **Application of the substance / the mixture** Hand protective foam.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
RETECH s.r.o.
Vackova 1541/4
155 00 Praha 5 - Stodůlky
Czech Republic
Tel: +420327596428
info@retech.cz, www.retech.com
- **Emergency telephone number:** RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic;
Telephone number: +420 327 596 128 (7.30-16.00 hour)

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Aerosol 1 H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02

- **Signal word** Danger
- **Hazard statements**
H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
- **Precautionary statements**
 - P102 Keep out of reach of children.
 - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P211 Do not spray on an open flame or other ignition source.
 - P251 Do not pierce or burn, even after use.
 - P261 Avoid breathing vapours/spray.
 - P271 Use only outdoors or in a well-ventilated area.
 - P403 Store in a well-ventilated place.
 - P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 - P501 Dispose of contents/container to in accordance with national regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 3
Reactivity = 3

- **WHMIS-ratings (scale 0 - 4)**



Health = 0
Fire = 3
Reactivity = 3

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- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Active substance with propellant

- **Dangerous components:**

106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	2.5-<10%
57-55-6	Propylene glycol	2.5-<10%
110-27-0	isopropyl myristate	0.1-<1%
109-66-0	Pentane	0.1-<1%
74-98-6	propane	0.1-<1%
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	0.1-<1%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 - Water haze
 - Fire-extinguishing powder
 - Carbon dioxide
 - Alcohol resistant foam
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
 - Do not allow product to reach sewage system or any water course.
 - Inform respective authorities in case of seepage into water course or sewage system.
 - Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
 - Absorb liquid components with liquid-binding material.
- **Reference to other sections**
 - No dangerous substances are released.
 - See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	5500* ppm
57-55-6	Propylene glycol	30 mg/m ³
102-71-6	Triethanolamine	15 mg/m ³
110-27-0	isopropyl myristate	81 mg/m ³
9003-39-8	2-Pyrrolidinone, 1-ethenyl-, homopolymer	51 mg/m ³
109-66-0	Pentane	3000* ppm
74-98-6	propane	5500* ppm
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	5500* ppm
63148-62-9	Polydimethylsiloxane	65 mg/m ³
120-51-4	Benzyl benzoate	5.7 mg/m ³
119-61-9	benzophenone	1.5 mg/m ³

· **PAC-2:**

106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	17000** ppm
57-55-6	Propylene glycol	1,300 mg/m ³
102-71-6	Triethanolamine	240 mg/m ³
110-27-0	isopropyl myristate	900 mg/m ³
9003-39-8	2-Pyrrolidinone, 1-ethenyl-, homopolymer	560 mg/m ³
109-66-0	Pentane	33000*** ppm
74-98-6	propane	17000** ppm
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	17000** ppm
63148-62-9	Polydimethylsiloxane	720 mg/m ³
120-51-4	Benzyl benzoate	63 mg/m ³
119-61-9	benzophenone	90 mg/m ³

· **PAC-3:**

106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	53000*** ppm
57-55-6	Propylene glycol	7,900 mg/m ³
102-71-6	Triethanolamine	1,500 mg/m ³
110-27-0	isopropyl myristate	5,400 mg/m ³
9003-39-8	2-Pyrrolidinone, 1-ethenyl-, homopolymer	20,000 mg/m ³
109-66-0	Pentane	200000*** ppm
74-98-6	propane	33000*** ppm
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	53000*** ppm
63148-62-9	Polydimethylsiloxane	4,300 mg/m ³
120-51-4	Benzyl benzoate	380 mg/m ³
119-61-9	benzophenone	310 mg/m ³

7 Handling and storage

· **Handling:**

· **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

· **Information about protection against explosions and fires:**

Do not spray on a naked flame or any incandescent material.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:**
Observe official regulations on storing packagings with pressurized containers.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

106-97-8 butane (containing < 0.1% butadiene (203-450-8), Note K)

REL	Long-term value: 1900 mg/m ³ , 800 ppm
TLV	Short-term value: 2370 mg/m ³ , 1000 ppm (EX)

57-55-6 Propylene glycol

WEEL Long-term value: 10 mg/m³

109-66-0 Pentane

PEL	Long-term value: 2950 mg/m ³ , 1000 ppm
REL	Long-term value: 350 mg/m ³ , 120 ppm Ceiling limit value: 1800* mg/m ³ , 610* ppm *15-min
TLV	Long-term value: 2950 mg/m ³ , 1000 ppm

74-98-6 propane

PEL	Long-term value: 1800 mg/m ³ , 1000 ppm
REL	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV	refer to Appendix F in TLVs&BEIs book; D, EX

75-28-5 isobutane (containing < 0,1 % butadiene (203-450-8), Note K)

TLV	Short-term value: 2370 mg/m ³ , 1000 ppm, (EX)
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:**
Filter AX/P2
Use suitable respiratory protective device in case of insufficient ventilation.
Filter ABEK/P2
- **Protection of hands:**
Protective gloves resistant to the product. EN 374
Solvent resistant gloves
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.5 mm

- **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

- **Body protection:** Use protective suit.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:** Aerosol

- **Color:** According to product specification

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

- **Melting point/Melting range:** Undetermined.

- **Boiling point/Boiling range:** 100 °C (212 °F)

- **Flash point:** >55 °C (>131 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

- **Lower:** 1.5 Vol %

- **Upper:** 12.6 Vol %

- **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

- **Density at 20 °C (68 °F):** 0.967 g/cm³ (8.07 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

- **Water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

- **Dynamic:** Not determined.

- **Kinematic:** Not determined.

- **Solvent content:**

- **Organic solvents:** 9.6 %

- **Water:** 82.0 %

- **Solids content:** 6.7 %

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10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

102-71-6	Triethanolamine	3
9003-39-8	2-Pyrrolidinone, 1-ethenyl-, homopolymer	3
119-61-9	benzophenone	2B

- **NTP (National Toxicology Program)**

93-08-3	Methyl beta-naphthyl ketone	R
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- **OSHA-Ca (Occupational Safety & Health**

Administration) None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- Water hazard class 1 (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA** UN1950

- **UN proper shipping name**
- **DOT** Aerosols, flammable
- **ADR, ADN** UN1950 AEROSOLS
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable

- **Transport hazard class(es)**

- **DOT**



- **Class** 2.1
- **Label** 2.1

- **ADR**



- **Class** 2 5F Gases
- **Label** 2.1

- **ADN**
- **ADN/R Class:** 2 5F

- **IMDG, IATA**



- **Class** 2.1
- **Label** 2.1

- **Packing group**
- **DOT, ADR, IMDG, IATA** Void

- **Environmental hazards:**
- **Marine pollutant:** No

- **Special precautions for user** Warning: Gases
- **Hazard identification number (Kemler code):** -
- **EMS Number:** F-D,S-U
- **Stowage Code** SW1 Protected from sources of heat.
SW22 For AEROSOLS with a maximum capacity of 1 litre:
Category A. For AEROSOLS with a capacity above 1 litre:
Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
- **Segregation Code** SG69 For AEROSOLS with a maximum capacity of 1 litre:
Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.

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.	For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

93-08-3 Methyl beta-naphthyl ketone

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

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· National regulations:

Class	Share in %
Wasser	75-<100
NK	2.5-<10

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Date of preparation / last revision 07/07/2020 / 5

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Aerosol 1: Aerosols – Category 1

· * Data compared to the previous version altered.

US