

according to Regulation (EC) No. 1907/2006

Revision Date 22.06.2017

Version 14.4

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

REACH Registration Number 01-2119487136-33-XXXX

CAS-No. 1310-58-3

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

Identified uses Pharmaceutical production, Cosmetic raw material

In compliance with the conditions described in the annex to this safety

data sheet.

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

Company Merck KGaA \* 64271 Darmstadt \* Germany \* Phone:+49 6151 72-0

Responsible Department LS-QHC \* e-mail: prodsafe@merckgroup.com

1.4 Emergency telephone

number

Please contact the regional company representation in your country.

#### **SECTION 2. Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Corrosive to metals, Category 1, H290

Acute toxicity, Category 4, Oral, H302

Skin corrosion, Category 1A, H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

## Hazard pictograms





Signal word

Danger

#### Hazard statements

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

# Precautionary statements

Prevention

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

# Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

#### Reduced labelling (≤125 ml)

Hazard pictograms





Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

*Index-No.* 019-002-00-8

#### 2.3 Other hazards

None known.

## SECTION 3. Composition/information on ingredients

## 3.1 Substance

Formula KOH HKO (Hill)

Index-No. 019-002-00-8

EC-No. 215-181-3

Molar mass 56,11 g/mol

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

## Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration)

CAS-No. Registration number Classification

potassium hydroxide (<= 100 %)

PBT/vPvB: Not applicable for inorganic substances

1310-58-3 01-2119487136-33-

XXXX Corrosive to metals, Category 1, H290

Acute toxicity, Category 4, H302 Skin corrosion, Category 1A, H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 3.2 Mixture

Not applicable

#### **SECTION 4. First aid measures**

## 4.1 Description of first aid measures

General advice

First aider needs to protect himself.

After inhalation: fresh air. Call in physician.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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

Risk of blindness!

Irritation and corrosion, Cough, Shortness of breath

according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

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

No information available.

## **SECTION 5. Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

#### 5.2 Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapours.

# 5.3 Advice for firefighters

Special protective equipment for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

## 6.2 Environmental precautions

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

#### 6.4 Reference to other sections

Indications about waste treatment see section 13.

#### SECTION 7. Handling and storage

## 7.1 Precautions for safe handling

Advice on safe handling

Observe label precautions.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

# 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

No aluminium, tin, or zinc containers.

No metal containers.

Storage conditions

Tightly closed. Dry.

Recommended storage temperature see product label.

## 7.3 Specific end use(s)

See exposure scenario in the Annex to this MSDS.

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

#### SECTION 8. Exposure controls/personal protection

#### 8.1 Control parameters

#### **Derived No Effect Level (DNEL)**

Worker DNEL, longterm Local effects inhalation 1 mg/m³

Consumer DNEL, longterm Local effects inhalation 1 mg/m³

#### Predicted No Effect Concentration (PNEC)

PNEC no data available

## 8.2 Exposure controls

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

# Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection

Tightly fitting safety goggles

Hand protection

full contact:

Glove material: Nitrile rubber
Glove thickness: 0,11 mm
Break through time: > 480 min

splash contact:

Glove material: Nitrile rubber

according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Glove thickness: 0,11 mm

Break through time: > 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment protective clothing

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### **Environmental exposure controls**

Do not let product enter drains.

#### SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form solid

Colour colourless

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur,BP,JP,NF,FCC,E 525

Odour odourless

Odour Threshold Not applicable

pH ca. 14

at 56 g/l 20 °C

Melting point 360 °C

Boiling point/boiling range 1.327 °C

at 1.013 hPa

Flash point Not applicable

Evaporation rate No information available.

Flammability (solid, gas) does not ignite

Lower explosion limit Not applicable

Upper explosion limit Not applicable

Vapour pressure at 20 °C

Not applicable

Relative vapour density No information available.

Density 2,04 g/cm3

at 20 °C

Relative density No information available.

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Water solubility 1.130 g/l

at 20 °C

Partition coefficient: n-

octanol/water Not applicable

Auto-ignition temperature No information available.

Decomposition temperature No information available.

Viscosity, dynamic No information available.

Explosive properties Not classified as explosive.

Oxidizing properties none

9.2 Other data

Ignition temperature Not applicable

Corrosion May be corrosive to metals.

# SECTION 10. Stability and reactivity

## 10.1 Reactivity

exothermic dissolution process with water

# 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

# 10.3 Possibility of hazardous reactions

Risk of explosion with:

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Tetrahydrofuran, Peroxides, sodium azide, benzoyl chloride, Calcium, in powder form, carbides, Chlorine, halogen oxides, organic nitro compounds, phosphorus, nonmetallic oxides, chlorine dioxide, Fluorine, magnesium, Nitroso compound, nitrogen trichloride

Exothermic reaction with:

acetonitrile, Acrolein, Aldehydes, Alcohols, acetic acid, Halogenated hydrocarbon, halogenhalogen compounds, Peroxides, hydrogen sulphide, hydrogen peroxide, vinyl acetate, Reducing agents, Acids, Acid chlorides, Acid anhydrides, peroxi compounds, Methanol, Chloroform

Risk of ignition or formation of inflammable gases or vapours with:

Aluminium, Ammonium salts, Germanium, anhydrides, Oxides of phosphorus, azides, Lead, Copper, Copper alloys, Tin, Zinc

Release of:

Hydrogen

#### 10.4 Conditions to avoid

no information available

#### 10.5 Incompatible materials

animal/vegetable tissues, glass, various plastics, Metals

#### 10.6 Hazardous decomposition products

no information available

#### **SECTION 11. Toxicological information**

# 11.1 Information on toxicological effects

Acute oral toxicity

LD50 Rat: 333 mg/kg

**OECD Test Guideline 425** 

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Acute inhalation toxicity

Symptoms: burns of mucous membranes, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Acute dermal toxicity

This information is not available.

Skin irritation

Rabbit

Result: Causes burns.

(IUCLID)

In vitro study

Result: Corrosive

**OECD Test Guideline 431** 

Causes severe burns.

Eye irritation

Rabbit

Result: Causes serious eye damage.

OECD Test Guideline 405

Causes serious eye damage.

Risk of blindness!

Sensitisation

Sensitisation test: Guinea pig

Result: negative

(IUCLID)

Germ cell mutagenicity

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Genotoxicity in vitro

Ames test

Escherichia coli/Salmonella typhimurium

Result: negative

(IUCLID)

Carcinogenicity

This information is not available.

Reproductive toxicity

This information is not available.

Teratogenicity

This information is not available.

Specific target organ toxicity - single exposure

This information is not available.

Specific target organ toxicity - repeated exposure

This information is not available.

Aspiration hazard

This information is not available.

#### 11.2 Further information

After uptake:

pain, oedema, Vomiting, shock, death

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## **SECTION 12. Ecological information**

#### 12.1 Toxicity

Toxicity to fish

LC50 Gambusia affinis (Mosquito fish): 80 mg/l; 96 h

(IUCLID)

# 12.2 Persistence and degradability

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

#### **Biodegradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

# 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

Not applicable

## 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB: Not applicable for inorganic substances

#### 12.6 Other adverse effects

Additional ecological information

Harmful effect due to pH shift.

Forms corrosive mixtures with water even if diluted.

Neutralisation possible in waste water treatment plants.

Discharge into the environment must be avoided.

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

## **SECTION 13. Disposal considerations**

Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

## **SECTION 14. Transport information**

Land transport (ADR/RID)

**14.1 UN number** UN 1813

**14.2 Proper shipping name** POTASSIUM HYDROXIDE, SOLID

**14.3 Class** 8

14.4 Packing group

14.5 Environmentally hazardous --

14.6 Special precautions for yes

user

Tunnel restriction code E

#### Inland waterway transport (ADN)

Not relevant

#### Air transport (IATA)

**14.1 UN number** UN 1813

14.2 Proper shipping name POTASSIUM HYDROXIDE, SOLID

**14.3 Class** 8

14.4 Packing group

14.5 Environmentally hazardous --

**14.6 Special precautions for** no

user

#### Sea transport (IMDG)

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

**14.1 UN number** UN 1813

**14.2 Proper shipping name** POTASSIUM HYDROXIDE, SOLID

**14.3 Class** 8

14.4 Packing group

14.5 Environmentally hazardous --

**14.6 Special precautions for** yes

user

EmS F-A S-B

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

## **SECTION 15. Regulatory information**

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

EU regulations

Major Accident Hazard SEVESO III
Legislation Not applicable

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at

work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where

applicable.

Regulation (EC) No 1005/2009 on substances that not regulated

deplete the ozone layer

Regulation (EC) No 850/2004 of the European not regulated

Parliament and of the Council of 29 April 2004 on

persistent organic pollutants and amending

Directive 79/117/EEC

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Substances of very high concern (SVHC)

This product does not contain substances

of very high concern according to

Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq$  0.1 % (w/w).

National legislation

Storage class 8B

## 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## **SECTION 16. Other information**

#### Full text of H-Statements referred to under sections 2 and 3.

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

## Training advice

Provide adequate information, instruction and training for operators.

## Labelling

Hazard pictograms





Signal word

Danger

Hazard statements

H290 May be corrosive to metals.

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

#### Precautionary statements

Prevention

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

## Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

## Regional representation

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

## **EXPOSURE SCENARIO 1 (Industrial use)**

## 1. Industrial use Pharmaceutical production, Cosmetic raw material)

## Sectors of end-use

SU 3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU 10 Formulation [mixing] of preparations and/ or re-packaging (excluding alloys)

## Chemical product category

PC19 Intermediate

PC39 Cosmetics, personal care products

## **Process categories**

PROC1	Use in closed process, no likelihood of exposure			
PROC2	Use in closed, continuous process with occasional controlled exposure			
PROC3	Use in closed batch process (synthesis or formulation)			
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises			
PROC5 Mixing or blending in batch processes for formulation of preparations and articles				
	(multistage and/ or significant contact)			
PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large			
	containers at non-dedicated facilities			
PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large			
	containers at dedicated facilities			
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including			
	weighing)			
PROC14	Production of preparations or articles by tabletting, compression, extrusion, pelletisation			
PROC15	Use as laboratory reagent			
PROC19	Hand-mixing with intimate contact and only PPE available			

## **Environmental Release Categories**

ERC1	Manufacture of substances
ERC2	Formulation of preparations
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

ERC6a Industrial use resulting in manufacture of another substance (use of intermediates)

ERC6b Industrial use of reactive processing aids

#### 2. Contributing scenarios: Operational conditions and risk management measures

# 2.1 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15

#### **Product characteristics**

Concentration of the Substance in Covers the percentage of the substance in the product up to

Mixture/Article 100 %.

Physical Form (at time of use)

Aqueous solution, Liquid mixture

#### Frequency and duration of use

Frequency of use 8 hours/day

## Other operational conditions affecting workers exposure

Outdoor / Indoor Indoor Indoor without local exhaust ventilation (LEV)

# Organisational measures to prevent /limit releases, dispersion and exposure

Covers daily exposures up to 8 hours.

# Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves (tested to EN374), coverall and eye protection.

#### 2.2 Contributing scenario controlling worker exposure for: PROC19

# **Product characteristics**

Concentration of the Substance in Covers the percentage of the substance in the product up to

Mixture/Article 100 %.

Physical Form (at time of use) Aqueous solution, Liquid mixture

#### Frequency and duration of use

Frequency of use 8 hours/day

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

### Other operational conditions affecting workers exposure

Outdoor / Indoor Indoor with local exhaust ventilation (LEV)

#### Organisational measures to prevent /limit releases, dispersion and exposure

Covers daily exposures up to 8 hours.

# Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves (tested to EN374), coverall and eye protection.

# 2.3 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, PROC19

#### **Product characteristics**

Concentration of the Substance in Covers the percentage of the substance in the product up to

Mixture/Article 100 %.

Physical Form (at time of use) Solid, low dustiness

Frequency and duration of use

Frequency of use 8 hours/day

#### Other operational conditions affecting workers exposure

Outdoor / Indoor Indoor Indoor without local exhaust ventilation (LEV)

## Organisational measures to prevent /limit releases, dispersion and exposure

Covers daily exposures up to 8 hours.

## Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves (tested to EN374), coverall and eye protection.

## 3. Exposure estimation and reference to its source

#### **Environment**

# according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur,BP,JP,NF,FCC,E 525

A chemical safety assessment was performed according REACH Article 14(3), Annex I, sections 3 (Environmental Hazard Assessment) and 4 (PBT/vPvB Assessment). As no hazard was identified, an exposure assessment and risk characterisation is not necessary (REACH Annex I section 5.0).

## Workers

CS	Use descriptor	Exposure duration, route, effect	RCR	Exposure Assessment Method
2.1	PROC1	longterm, inhalative, local	0,02	ECETOC TRA
2.1	PROC2	longterm, inhalative, local	0,23	ECETOC TRA
2.1	PROC3	longterm, inhalative, local	0,23	ECETOC TRA
2.1	PROC4	longterm, inhalative, local	0,23	ECETOC TRA
2.1	PROC5	longterm, inhalative, local	0,23	ECETOC TRA
2.1	PROC8a	longterm, inhalative, local	0,23	ECETOC TRA
2.1	PROC8b	longterm, inhalative, local	0,23	ECETOC TRA
2.1	PROC9	longterm, inhalative, local	0,23	ECETOC TRA
2.1	PROC14	longterm, inhalative, local	0,23	ECETOC TRA
2.1	PROC15	longterm, inhalative, local	0,23	ECETOC TRA
2.2	PROC19	longterm, inhalative, local	0,02	ECETOC TRA
2.3	PROC1	longterm, inhalative, local	0,01	ECETOC TRA
2.3	PROC2	longterm, inhalative, local	0,01	ECETOC TRA
2.3	PROC3	longterm, inhalative, local	0,1	ECETOC TRA
2.3	PROC4	longterm, inhalative, local	0,5	ECETOC TRA
2.3	PROC5	longterm, inhalative, local	0,5	ECETOC TRA
2.3	PROC8a	longterm, inhalative, local	0,5	ECETOC TRA
2.3	PROC8b	longterm, inhalative, local	0,1	ECETOC TRA
2.3	PROC9	longterm, inhalative, local	0,1	ECETOC TRA
2.3	PROC14	longterm, inhalative, local	0,1	ECETOC TRA
2.3	PROC15	longterm, inhalative, local	0,1	ECETOC TRA
2.3	PROC19	longterm, inhalative, local	0,5	ECETOC TRA

For (other) local effects risk management measures are based on qualitative risk characterisation.

# 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).

For scaling of worker exposure assessments performed with ECETOC TRA, please consult the Merck tool ScIDeEx® at www.merckmillipore.com/scideex.

## according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

#### **EXPOSURE SCENARIO 2 (Professional use)**

## 1. Professional use Pharmaceutical production, Cosmetic raw material)

#### Sectors of end-use

SU 22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

### Chemical product category

PC39 Cosmetics, personal care products

#### **Environmental Release Categories**

ERC8a Wide dispersive indoor use of processing aids in open systems

ERC8d Wide dispersive outdoor use of processing aids in open systems

#### 2. Contributing scenarios: Operational conditions and risk management measures

#### 3. Exposure estimation and reference to its source

#### **Environment**

A chemical safety assessment was performed according REACH Article 14(3), Annex I, sections 3 (Environmental Hazard Assessment) and 4 (PBT/vPvB Assessment). As no hazard was identified, an exposure assessment and risk characterisation is not necessary (REACH Annex I section 5.0).

In accordance with REACH Article 14(5b), exposure estimations and risk characterizations for human health do not need to be performed for uses of substances in cosmetic products which are under the scope of Directive 76/768/EEC.

# 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH

according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur,BP,JP,NF,FCC,E 525

Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).

according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur, BP, JP, NF, FCC, E 525

## **EXPOSURE SCENARIO 3 (Consumer use)**

## 1. Consumer use Pharmaceutical production, Cosmetic raw material)

#### Sectors of end-use

SU 21 Consumer uses: Private households (= general public = consumers)

## Chemical product category

PC39 Cosmetics, personal care products

# **Environmental Release Categories**

ERC8a Wide dispersive indoor use of processing aids in open systems
ERC8d Wide dispersive outdoor use of processing aids in open systems

## 2. Contributing scenarios: Operational conditions and risk management measures

# 3. Exposure estimation and reference to its source

#### **Environment**

A chemical safety assessment was performed according REACH Article 14(3), Annex I, sections 3 (Environmental Hazard Assessment) and 4 (PBT/vPvB Assessment). As no hazard was identified, an exposure assessment and risk characterisation is not necessary (REACH Annex I section 5.0).

In accordance with REACH Article 14(5b), exposure estimations and risk characterizations for human health do not need to be performed for uses of substances in cosmetic products which are under the scope of Directive 76/768/EEC.

# 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC

according to Regulation (EC) No. 1907/2006

Catalogue No. 105032

Product name Potassium hydroxide pellets EMPROVE® ESSENTIAL Ph

Eur,BP,JP,NF,FCC,E 525

Guidance Specific Environmental Release Categories (SPERCs).