

according to the Global Harmonized System (and with all of the information required by the HPR)

Revision Date 06/15/2018

Version 1.6

SECTION 1.Identification

Product identifier

Product number 106290

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur, BP, NF, FCC, E 211

CAS-No. 532-32-1

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

Identified uses Food and pharmaceutical industry, Cosmetic raw material

Details of the supplier of the safety data sheet

Company Millipore (Canada) Ltd. | 2149 Winston Park Dr. | Oakville | Ontario

L6H 6J8 | Canada | General Inquiries: +1 905 829 9500 | Monday to

Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.

Emergency telephone 800-424-9300 CHEMTREC (USA)

+1-703-527-3887 CHEMTREC (International)

24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Eye irritation, Category 2A, H319

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

GHS-Labeling

Hazard pictograms



Signal Word Warning

Hazard Statements

H319 Causes serious eye irritation.

Precautionary Statements

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

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

according to the Global Harmonized System (and with all of the information required by the HPR)

Product number 106290 Version 1.6

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur,BP,NF,FCC,E 211

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

P337 + P313 If eye irritation persists: Get medical advice/ attention.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Formula C_6H_5COONa $C_7H_5NaO_2$ (Hill)

Molar mass 144.10 g/mol

Hazardous ingredients

Chemical name (Concentration)

CAS-No.

sodium benzoate (>= 90 % - <= 100 %)

532-32-1

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

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

shower.

Eye contact

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

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult a

physician.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

irritant effects, Nausea, Vomiting, Stomach/intestinal disorders

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Water, Foam, Carbon dioxide (CO2), Dry powder

Unsuitable extinguishing media

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

Special hazards arising from the substance or mixture

according to the Global Harmonized System (and with all of the information required by the HPR)

Product number 106290 Version 1.6

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur,BP,NF,FCC,E 211

Combustible.

Risk of dust explosion.

Development of hazardous combustion gases or vapors possible in the event of fire.

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

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.

Environmental precautions

Do not let product enter drains.

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.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

Store at $+2^{\circ}$ C to $+25^{\circ}$ C ($+36^{\circ}$ F to $+77^{\circ}$ F).

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Contains no substances with occupational exposure limit values.

Engineering measures

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

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

according to the Global Harmonized System (and with all of the information required by the HPR)

Product number 106290 Version 1.6

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur,BP,NF,FCC,E 211

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

Eye/face protection Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:

protective clothing

Respiratory protection

required when dusts are generated.

SECTION 9. Physical and chemical properties

Physical state crystalline

powder

Color white

Odor odorless

Odor Threshold Not applicable

pH ca. 8

at 100 g/l 68 °F (20 °C) Aqueous solution

Melting point 817 °F (436 °C)

at 1,013 hPa

Method: OECD Test Guideline 102

Boiling point/boiling range $> 842 - < 887 \,^{\circ}\text{F} \ (> 450 - < 475 \,^{\circ}\text{C})$

at 1,013 hPa

Method: OECD Test Guideline 103

Decomposition

Flash point No information available.

Evaporation rate No information available.

Flammability (solid, gas) does not ignite

Pyrophoric properties of solids and liquids

Lower explosion limit Not applicable

according to the Global Harmonized System (and with all of the information required by the HPR)

Product number 106290 Version 1.6

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur,BP,NF,FCC,E 211

Upper explosion limit Not applicable

Vapor pressure Not applicable

Relative vapor density Not applicable

Density 1.50 g/cm³

at 68 °F (20 °C)

Method: OECD Test Guideline 109

Relative density No information available.

Water solubility ca.556 g/l

at 68 °F (20 °C)

Partition coefficient: n-

octanol/water

log Pow: -2.27 (calculated)

(Lit.) Bioaccumulation is not expected.

Autoignition temperature No information available.

Decomposition temperature No information available.

Viscosity, dynamic No information available.

Explosive properties Not classified as explosive.

Oxidizing properties none

Ignition temperature > 932 °F (> 500 °C)

Bulk density ca.350 kg/m3

SECTION 10. Stability and reactivity

Reactivity

Risk of dust explosion.

Chemical stability

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

Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents, Strong acids

Conditions to avoid

no information available

Incompatible materials

no information available

according to the Global Harmonized System (and with all of the information required by the HPR)

Product number 106290 Version 1.6

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur,BP,NF,FCC,E 211

Hazardous decomposition products

no information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Inhalation, Eye contact, Skin contact, Ingestion

Acute oral toxicity

LD50 Rat: 3,140 mg/kg (External MSDS)

Symptoms: Nausea, Vomiting, Stomach/intestinal disorders

Acute inhalation toxicity

Symptoms: Possible symptoms:, mucosal irritations

Skin irritation

Rabbit

Result: No irritation

OECD Test Guideline 404

Eye irritation

Rabbit

Result: irritating

OECD Test Guideline 405

Causes serious eye irritation.

Genotoxicity in vivo

Chromosome aberration test

Rat

Result: negative

Method: OECD Test Guideline 475

Genotoxicity in vitro

Ames test

Escherichia coli/Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

according to the Global Harmonized System (and with all of the information required by the HPR)

Product number	106290	Version 1.6

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur,BP,NF,FCC,E 211

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

ACGIH No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by ACGIH.

Further information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to fish

flow-through test LC50 Pimephales promelas (fathead minnow): 484 mg/l; 96 h

Analytical monitoring: yes

US-EPA

Toxicity to daphnia and other aquatic invertebrates

static test EC50 Daphnia magna (Water flea): > 100 mg/l; 48 h (ECHA)

Toxicity to algae

static test ErC50 Pseudokirchneriella subcapitata (green algae): > 100 mg/l; 72 h

Analytical monitoring: yes OECD Test Guideline 201

Persistence and degradability

Biodegradability

ca. 90 %; 28 d; aerobic

OECD Test Guideline 301B

Readily biodegradable.

Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow: -2.27

(calculated)

(Lit.) Bioaccumulation is not expected.

Mobility in soil

No information available.

Other adverse effects

Surface tension

72.9 mN/m

at 68 °F(20 °C)

Method: OECD Test Guideline 115

similar to water

according to the Global Harmonized System (and with all of the information required by the HPR)

Product number 106290 Version 1.6

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur,BP,NF,FCC,E 211

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. Regulatory information

United States of America

Canada

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Labeling

Hazard pictograms



Signal Word Warning

Hazard Statements

H319 Causes serious eye irritation.

according to the Global Harmonized System (and with all of the information required by the HPR)

Product number 106290 Version 1.6

Product name Sodium benzoate EMPROVE® ESSENTIAL Ph Eur,BP,NF,FCC,E 211

Precautionary Statements

Response

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

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.

Revision Date06/15/2018

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

All rights reserved. Millipore and the "M" Mark are registered trademarks of Merck KGaA, Darmstadt, Germany.