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SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Version 6.3 Revision Date 10.05.2021 Print Date 29.01.2022 GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

SECTION 1: Identification of the substance/mixture and of the company/undertaking **Product identifiers** 1.1 Product name : Ibuprofen Product Number : I4883 Brand Sigma : REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. CAS-No. : 15687-27-1 Relevant identified uses of the substance or mixture and uses advised against 1.2 Identified uses : Laboratory chemicals, Manufacture of substances 1.3 Details of the supplier of the safety data sheet Sigma-Aldrich Inc. Company : 3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES Telephone : +1 314 771-5765 : +1 800 325-5052 Fax 1.4 **Emergency telephone** : 800-424-9300 CHEMTREC (USA) +1-703-Emergency Phone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703 527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 4), H302 Eye irritation (Category 2), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

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Pictogram	
Signal word	Warning
Hazard statement(s) H302 H319 H335	Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation.
Precautionary statement(s) P261 P264 P270 P271 P301 + P312 P305 + P351 + P338	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue
Supplemental Hazard Statements	rinsing. none
Reduced Labeling (<= 125 ml) Pictogram	
Signal word	Warning
Hazard statement(s)	none
Precautionary statement(s)	none

Supplemental Hazard Statements

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Caution: Physiologically highly active, therapeutically usable substance. The substance must be handled with the care required for hazardous materials.

SECTION 3: Composition/information on ingredients

none

3.1 Substances

Synonyms		(isobutyl)phenylacetic acid obutylphenyl)propanoic acid	
Formula Molecular weight CAS-No. EC-No.	: C13H18O2 : 206,28 g/m : 15687-27-1 : 239-784-6		
Component		Classification	Concentration

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a-methyl-4-(2-m	ethylpropyl)phenylac	etic acid, (±)-	
CAS-No.	15687-27-1	Acute Tox. 4; Eye Irrit. 2;	<= 100 %
EC-No.	239-784-6	STOT SE 3; H302, H319, H335	

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

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Consult doctor if feeling unwell.

In case of skin contact

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

In case of eye contact

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

If swallowed

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

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available

SECTION 5: Firefighting measures

5.1 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.

5.2 Special hazards arising from the substance or mixture

Carbon oxides Combustible. Risk of dust explosion. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice 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.

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5.4 **Further information**

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 6.1 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.

For personal protection see section 8.

6.2 **Environmental precautions** 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** For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities 7.2

Storage conditions Tightly closed. Dry.

7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 **Exposure controls**

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

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).

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Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L

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). Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L

Body Protection

protective clothing

Respiratory protection

required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P3

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.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: solid Color: colorless
b)	Odor	No data available
c)	Odor Threshold	No data available
d)	рН	No data available
e)	Melting point/freezing point	Melting point/range: 75 - 77 °C at 1.013 hPa
f)	Initial boiling point and boiling range	154 - 157 °C at 5,32 hPa
g)	Flash point	No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower	No data available

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flammability or explosive limits

- k) Vapor pressure No data available
- I) Vapor density No data available
- m) Relative density No data available
- n) Water solubility 0,011 g/l at 25 °C
- o) Partition coefficient: log Pow: 3,87 at 25 °C (ECHA), Bioaccumulation is not expected.
- p) Autoignition No data available temperature
- q) Decomposition No data available temperature
- r) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

9.2 Other safety information No data available

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions Violent reactions possible with: strong oxidising agents

10.4 Conditions to avoid

no information available

10.5 Incompatible materials Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 1.600 mg/kg Remarks: (ECHA) Inhalation: No data available

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Dermal: No data available

Skin corrosion/irritation

Skin - In vitro study Result: No skin irritation (OECD Test Guideline 431)

Serious eye damage/eye irritation No data available

Respiratory or skin sensitization

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative

Carcinogenicity

No data available

Reproductive toxicity No data available

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

11.2 Additional Information

RTECS: MU6640000

Gastrointestinal disturbance, Nausea, Vomiting, Diarrhea, Constipation., Dizziness, Headache, Drowsiness To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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	static test LC50 - Lepomis macrochirus - 173 mg/l - 96 h Remarks: (ECHA)
Toxicity to algae	EC50 - Lemna minor (duckweed) - 22 mg/l - 7 d Remarks: (ECHA)

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12.2 Persistence and degradability

Biodegradability

aerobic - Exposure time 28 d Result: 20 - 60 % - Partially biodegradable. (OECD Test Guideline 301D)

- **12.3 Bioaccumulative potential** No data available
- 12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

14.1 UN number ADR/RID: -	IMDG: -	IATA: -
14.2 UN proper shipping nam ADR/RID:ADR/RID:IMDG:IMDG:IATA:Not dangerous	goods goods	
14.3 Transport hazard class(ADR/RID: -	es) IMDG: -	IATA: -
14.4 Packaging group ADR/RID: -	IMDG: -	IATA: -
14.5 Environmental hazards ADR/RID: no	IMDG Marine pollutant: no	IATA: no

14.6 Special precautions for user

Further information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

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

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable

Other regulations

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

Take note of Dir 94/33/EC on the protection of young people at work.

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.

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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