Safety Data Sheet

according to Regulation (EC) No 1907/2006

1-Bromnaphthalin

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

1-Bromnaphthalin

Product code:

ORA-A1107

Further trade names

Substance name: 1-bromonaphthalene

CAS No: 90-11-9

EC No: 201-965-2

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

Use of the substance/mixture

Laboratory chemicals
Equipment maintenance

1.3. Details of the supplier of the safety data sheet

Company name: KERN & SOHN GmbH
Street: Ziegelei 1
Place: D-72336 Balingen-Frommern
Telephone: +49 (0)7433 9933 0 Telefax: +49 (0)7433 9933 149
e-mail: info@kern-sohn.com
Contact person: Daniel Junger Telephone: +49 (0)7433 9933 155
e-mail: daniel.junger@kern-sohn.com
Internet: www.kern-sohn.com

1.4. Emergency telephone number:

GIZ-Nord, Göttingen, Germany +49 551 19240 (24h/7d)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Acute toxicity: Acute Tox. 4
Serious eye damage/eye irritation: Eye Irrit. 2
Hazard Statements:
Harmful if swallowed.
Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Warning

Pictograms:



Hazard statements

H302 Harmful if swallowed.
H319 Causes serious eye irritation.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of waste according to applicable legislation.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Warning

Pictograms:



Hazard statements

H302

Precautionary statements

P101-P102-P501

2.3. Other hazards

In case of warming: Vapours can form explosive mixtures with air.

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: C10H7Br

Molecular weight: 207,07 g/mol

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
90-11-9	1-bromonaphthalene			100 %
	201-965-2			
	Acute Tox. 4, Eye Irrit. 2; H302 H319			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection!
If unconscious place in recovery position and seek medical advice.

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. Put victim at rest, cover with a blanket and keep warm. If breathing is irregular or stopped, administer artificial respiration. Get medical advice/attention.

After contact with skin

Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After contact with eyes

Protect uninjured eye. Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps. Get medical advice/attention if you feel unwell.

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

Causes serious eye irritation. Causes mild skin irritation.

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

First Aid, decontamination, treatment of symptoms.
Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.
Water spray jet, Carbon dioxide (CO2), Extinguishing powder.
In case of major fire and large quantities: Water spray jet, alcohol resistant foam.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Vapours can form explosive mixtures with air. Heating causes rise in pressure with risk of bursting.
In case of fire may be liberated: Hydrogen bromide (HBr), Carbon monoxide, Carbon dioxide (CO2), Gases/vapours, toxic, Flammable, corrosive.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Evacuate area. Remove persons to safety.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.
Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. In case of warming: Vapours can form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed and in a well-ventilated place. Store in a cool dry place. Do not allow to enter into soil/subsoil.

Hints on joint storage

Do not store together with: Food and feedingstuffs, Oxidizing agent, Pyrophoric or self-heating substances.

Further information on storage conditions

Keep away from heat. Protect against direct sunlight.

7.3. Specific end use(s)

Laboratory chemicals
Equipment maintenance

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls






Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Protect skin by using skin protective cream. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Keep away from food, drink and animal feedingstuffs. Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray.

Eye/face protection

Wear eye/face protection. Eye glasses with side protection

Hand protection

Wear protective gloves.

Unsuitable material: Natural fibres (e.g. cotton), Leather articles

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

Use of protective clothing. Apron, Boots, Chemical protection clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection necessary at: Vapour, aerosol or mist formation.
short-term:
Filtering device (full mask or mouthpiece) with filter: ABEK-P2, ABEK-P3

long-term:
Self-contained respirator (breathing apparatus) (DIN EN 133)

Environmental exposure controls

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid (viscous)
Colour:	dark brown
Odour:	stinging
pH-Value:	not determined

Changes in the physical state

Melting point:	-2 - -1 °C
Initial boiling point and boiling range:	281 °C
Flash point:	67 °C

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

The product is not: Explosive.
Vapours can form explosive mixtures with air.

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidising.

Vapour pressure:	not determined
Density (at 20 °C):	1,485 g/cm³
Water solubility:	insoluble in: Water

Solubility in other solvents

not determined

Partition coefficient:	4,35
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Odour threshold: not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reaction with: Oxidising agent, strong
In case of warming: Vapours can form explosive mixtures with air.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect against direct sunlight.

10.5. Incompatible materials

Oxidizing agent, Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products

Gases/vapours, toxic
Gases/vapours, corrosive
Gases/vapours, flammable
In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Hydrogen bromide (HBr).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
90-11-9	1-bromonaphthalene				
	oral	ATE 500 mg/kg			

Irritation and corrosivity

Causes serious eye irritation.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

Based on the n-octanol/water partition coefficient accumulation in organisms is possible.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
90-11-9	1-bromonaphthalene	4,35

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

AOX: not relevant (DIN EN ISO 9562)

Directive 2006/11/EC on pollution caused by certain dangerous substances discharged into the aquatic environment:
Contains: none Heavy metals

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. The waste code has to be identified in agreement with the disposal company or the competent authority.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3: 1-bromonaphthalene

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not relevant

Regulation (EC) No 850/2004 [POP-Regulation]: not relevant

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 3 - highly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
AOX: Adsorbable Organic Halides
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H319	Causes serious eye irritation.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations.