





(Contd. of page 1)

# Product name: 4-Bromophthalimide

# 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 Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx) Hydrogen bromide (HBr) Advice for firefighters Protective equipment:

Wear self-contained respirator. Wear fully protective impervious suit.

#### 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow product to reach sewage system or any water course. Methods and material for containment and cleaning up: Ensure adequate ventilation.

Prevention of secondary hazards: No special measures required. Reference to other sections

- See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

#### 7 Handling and storage

Handling Precautions for safe handling

Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace.

Information about protection against explosions and fires: No information known.

### Conditions for safe storage, including any incompatibilities

Storage Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Specific end use(s) No further relevant information available.

# 8 Exposure controls/personal protection

Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

#### Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information: No data

# Exposure controls

Exposure controls Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all solied and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the eves and skin

Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. **Breathing equipment:** Use suitable respirator when high concentrations are present.

Recommended filter device for short term use: Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. Protection of hands:

Impervious gloves

The protective gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. **Penetration time of glove material (in minutes)** Not determined **Eye protection:** Safety glasses **Body protection:** Protective work clothing.

#### 9 Physical and chemical properties

9 Physical and chemical properties			
Information on basic physical and ch General Information Appearance: Form: Color: Odor: Odor threshold:	hemical properties Solid Off-white Not determined Not determined.		
pH-value:	Not applicable.		
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	230-235 °C (446-455 °F) Not determined Not determined		

(Contd. on page 3)

# Product name: 4-Bromophthalimide

Page 3/4 Printing date 11/23/2015 Reviewed on 11/20/2014

	I \GVIG	ewed on 11/20/201
roduct name: 4-Bromophthalimide		
		(Contd. of page 2
Flammability (solid, gaseous)	Not determined.	,
Ignition temperature: Decomposition temperature:	Not determined Not determined	
Auto igniting:	Not determined.	
Danger of explosion: Explosion limits:	Not determined.	
Explosion limits: Lower:	Not determined	
Upper:	Not determined	
Vapor pressure: Density:	Not applicable. Not determined	
Relative density	Not determined.	
Vapor density ´ Evaporation rate	Not applicable. Not applicable.	
Solubility in / Miscibility with		
Water: Partition coefficient (n-octanol/water):	Not determined : Not determined.	
Viscosity:		
dynamic: kinematic:	Not applicable. Not applicable.	
Other information	Not applicable. No further relevant information available.	
0 Stability and reactivity		
Reactivity No information known.		
Chemical stability Stable under recomm	mended storage conditions. t <b>o be avoided:</b> Decomposition will not occur if used and stored according to specifications.	
<b>Possibility of hazardous reactions</b> Rea	acts with strong oxidizing agents	
Conditions to avoid No further relevant	t information available.	
Incompatible materials: Oxidizing agen Hazardous decomposition products:	ıts	
Carbon monoxide and carbon dioxide		
Nitrogen oxides Hydrogen bromide		
· · ·		
1 Toxicological information		
Information on toxicological effects Acute toxicity: No effects known.		
LD/LC50 values that are relevant for cl	assification: No data	
Skin irritation or corrosion: Causes ski	kin irritation.	
Eye irritation or corrosion: Causes sen Sensitization: No sensitizing effects kno	rious eye irritation. own.	
Germ cell mutagenicity: No effects kno	own.	
Carcinogenicity: No classification data of Reproductive toxicity: No effects known	on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Specific target organ system toxicity -	- repeated exposure: No effects known.	
Specific target organ system toxicity - Aspiration hazard: No effects known.	- single exposure: May cause respiratory irritation.	
Subacute to chronic toxicity: No effect	ts known.	
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
2 Ecological information		
Toxicity		
Aquatic toxicity: No further relevant info	ormation available.	
Persistence and degradability No furthe Bioaccumulative potential No further re	her relevant information available.	
Mobility in soil No further relevant inform	Sevant Information available. mation available.	
Additional ecological information: General notes:		
Do not allow undiluted product or large q	quantities to reach ground water, water course or sewage system.	
Avoid transfer into the environment. Results of PBT and vPvB assessment		
PBT: Not applicable.		
vPvB: Not applicable. Other adverse effects No further releval	ant information available	
3 Disposal considerations		
Waste treatment methods Recommendation Consult state. local of	or national regulations to ensure proper disposal.	
Uncleaned packagings:	5 I I I	
Recommendation: Disposal must be ma	ade according to official regulations.	
4 Transport information		
UN-Number DOT, ADN, IMDG, IATA	Not applicable	
UN proper shipping name		
DOT, ADN, IMDG, IATA Transport hazard class(es)	Not applicable	
DOT, ADR, ADN, IMDG, IATA		
Class	Not applicable	
Packing group DOT, IMDG, IATA		
	Not applicable	
Environmental hazards: Special precautions for user	Not applicable.	
Special precautions for user Transport in bulk according to Annex	Not applicable. I I of MARPOL73/78 and the IBC Code Not applicable.	
Transport in bulk according to Annea	II of MARPUL /3/ /8 and the IBC Code Not applicable.	(Contd. on page
		(UUIIIU. UII page

Safety Data Sheet per OSHA HazCom 2012

Page 4/4 Printing date 11/23/2015 Reviewed on 11/20/2014

	Reviewed on 11/20/201-
Product name: 4-Bromophthalimide	
	(Contd. of page 3
Transport/Additional information:	
DOT Marine Pollutant (DOT):	No
UN "Model Regulation":	-
5 Regulatory information	
Safety, health and environmental regulations/leg	gislation specific for the substance or mixture labeled in accordance with 29 CFR 1910 (OSHA HCS)
$\langle \mathbf{t} \rangle$	
GHS07	
Signal word Warning	
Hazard statements	
H315 Causes skin irritation. H319 Causes serious eye irritation.	
H335 May cause respiratory irritation. Precautionary statements	
P261 Avoid breathing dust/fume/gas/m	nist/vapours/spray.
P280 Wear protective gloves/protective P305+P351+P338 IF IN FYES: Rinse cautiously wit	nist/vapours/spray. e clothing/eye protection/face protection. th water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. fresh air and keep comfortable for breathing.
P304+P340 IF INHALED: Remove person to P405 Store locked up.	fresh air and keep comfortable for breathing.
P501 Dispose of contents/container in	accordance with local/regional/national/international regulations.
National regulations '	Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricte
to research and development only. This product mus	ist be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This
product must not be used for commercial purposes of This product is not listed on the Canadian Domestic	or in formulations for commercial purposes. Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).
SARA Section 313 (specific toxic chemical listing	as) Substance is not listed.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Sub	ostance is not listed.
Prop 65 - Developmental toxicity Substance is not Prop 65 - Developmental toxicity, female Substan	t listed.
Prop 65 - Developmental toxicity, male Substance	e is not listed.
Information about limitation of use: For use only l Other regulations, limitations and prohibitive regulations	by technically qualified individuals.
Substance of Very High Concern (SVHC) accord	gulations ling to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.
The conditions of restrictions according to Article market and use must be observed.	ele 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the
Substance is not listed.	Authorization for use) Culatones is not listed
Annex XIV of the REACH Regulations (requiring Chemical safety assessment: A Chemical Safety /	
6 Other information	
information to ensure proper use and protect the heat	oplement to other information gathered by them, and should make independent judgement of suitability of this alth and safety of employees. This information is furnished without warranty, and any use of the product not in or in combination with any other product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Depart	
Date of preparation / last revision 11/23/2015 / - Abbreviations and acronyms:	
ADR: Accord européen sur le transport des marchandises dangereus DOT: US Department of Transportation	ses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS: Chemical Abstracts Service (division of the American Chemical HMIS: Hazardous Materials Identification System (USA)	I Society)
WHMIS: Workplace Hazardous Materials Information System (Canad LC50: Lethal concentration, 50 percent	ses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) I Society) da)
ACGIH: American Conference of Governmental Industrial Hygienists OSHA: Occupational Safety and Health Administration (USA)	(USA)

ACGIH: American Conference of Governmental Industrial Hyg OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

USA