

Safety Data Sheet per OSHA HazCom 2012

1 Identification

Product identifier ()nonhthal

Product name: 2-(Bromoacetyl)naphthalene
Stock number: B23960, L02061
CAS Number: 613-54-7
EC number:
210-348-7 Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development
Details of the supplier of the safety data sheet Manufacturer/Supplier:
Alia Aesar Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-342-0660 Fax: 800-322-4757 Email: tech@alfa.com
Tel: 800-343-0660
Fax: 800-322-4757 Email: tech@alfa.com
www.alfa.com Information Department: Health, Safety and Environmental Department
Emergency telephone number:
During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.
2 Hazard(s) identification
Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)
GHS05 Corrosion
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage. Hazards not otherwise classified Lachrymator
Label elements
GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms
GHS05
Signal word Danger
Signal word Danger Hazard statements
H314 Causes severe skin burns and eye damage. Precautionary statements
P260 Do not breathe dust/fume/gas/mist/vapours/spray. P303+P361+P353 If on skin (or bair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P260 Do not breathe dust/fume/gas/mist/vapours/spray. P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P405 Store locked UD.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification
D2B - Toxic material causing other toxic effects E - Corrosive material
Classification system
HMIS ratings (scale 0-4) (Hazardous Materials Identification System)
HEALTH B Health (acute effects) = 3
FIRE I Flammability = 1 REACTIVITY Physical Hazard = 1
Other hazards
Results of PBT and vPvB assessment PBT: Not applicable.
vPvB: Not applicable.
3 Composition/information on ingredients
Chemical characterization: Substances
CAS# Description: 613-54-7 2-(Bromoacetyl)naphthalene Identification number(s):
Identification number(s): EC number: 210-348-7
4 First-aid measures
Description of first aid measures General information Immediately remove any clothing soiled by the product.
After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact
After skin contact Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.
Seek immediate medical advice. (Contd. on page

Odor:

pH-value:

Odor threshold:

Not determined

Not determined

Not applicable.

## Product name: 2-(Bromoacetyl)naphthalene

(Contd. of page 1) After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. After swallowing Seek medical treatment. Information for doctor Most important symptoms and effects, both acute and delayed Causes severe skin burns. Causes serious eye damage. 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 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 material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Use neutralizing agent. Dispose of contaminated material as waste according to section 13. 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. Store away from strong bases. 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: Not required. 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 soiled 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. Protection of hands: Impervious gloves Check 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. Eye protection: Tightly sealed goggles fáce protectio Body protection: Protective work clothing. 9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: Form: Color: Crystalline Light brown

## Product name: 2-(Bromoacetyl)naphthalene

roduct name: 2-(Bromoacetyi)naph		Contd. of page 2
Change in condition	((	contu. or page z
Melting point/Melting range:	80-85 °C (176-185 °F)	
Boiling point/Boiling range: Sublimation temperature / start:	Not determined Not determined	
Flash point:	Not applicable	
Flammability (solid, gaseous)	Not determined.	
Ignition temperature: Decomposition temperature:	Not determined Not determined	
Auto igniting:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
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	Not applicable.	
Water:	Insoluble	
Partition coefficient (n-octanol/water): Viscosity:	Not determined.	
dynamic:	Not applicable.	
kinematic: Other information	Not applicable. No further relevant information available.	
10 Stability and reactivity		
Reactivity No information known.		
Chemical stability Stable under recomm	nended storage conditions. • <b>be avoided:</b> Decomposition will not occur if used and stored according to specifications.	
Possibility of hazardous reactions No	dangerous reactions known	
Conditions to avoid No further relevant	information available.	
Incompatible materials: Oxidizing agents		
Bases		
Hazardous decomposition products: Carbon monoxide and carbon dioxide		
Hydrogen bromide		
11 Toxicological information		
11 Toxicological information		
Information on toxicological effects Acute toxicity: Swallowing will lead to a	strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.	
LD/LC50 values that are relevant for c	lassification: No data	
Skin irritation or corrosion: Causes se Eye irritation or corrosion:	vere skin burns.	
Causes serious eve damage.		
This product is a lachrymator. Sensitization: No sensitizing effects kno		
Germ cell mutagenicity: No effects kno	Wn.	
Reproductive toxicity: No effects know	on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Specific target organ system toxicity - Specific target organ system toxicity -	repeated exposure: No effects known.	
Specific target organ system toxicity - Aspiration hazard: No effects known.	single exposure: No effects known.	
Subacute to chronic toxicity: No effect		
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
12 Ecological information		
Toxicity		
Aquatic toxicity: No further relevant info	ormation available.	
Persistence and degradability No furth Bioaccumulative potential No further re	er relevant information available. Jewant information available	
Mobility in soil No further relevant inform	nation available.	
Additional ecological information: General notes:		
Do not allow material to be released to the	ne environment without proper governmental permits.	
Avoid transfer into the environment. Results of PBT and vPvB assessment		
PBT: Not applicable.		
vPvB: Not applicable. Other adverse effects No further releva	nt information available	
13 Disposal considerations		
Waste treatment methods		
<b>Example 1 Uncleaned packagings:</b>	r national regulations to ensure proper disposal.	
Recommendation: Disposal must be ma	ade according to official regulations.	
14 Transport information		
14 Transport information UN-Number		
DOT, IMDG, IATA	UN3261	
UN proper shipping name		
DOT IMDG, IATA	Corrosive solid, acidic, organic, n.o.s. (2-(Bromoacetyl)naphthalene) CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (2-(Bromoacetyl)na	anhthalana)
		Contd. on page

(Contd. on page 4) USA

Product name: 2-(Bromoacetyl)naphthalene	
	(Contd. of page 3
Transport hazard class(es)	, , , , , , , , , , , , , , , , ,
DOT	
V	
Class Label	8 Corrosive substances.
Class	8 (C4) Corrosive substances
Label IMDG, IATA	8
1 Alexandre and a second secon	
Class Label	8 Corrosive substances.
	0
Packing group DOT, IMDG, IATA	
Environmental hazards:	Not applicable.
Special precautions for user Segregation groups	Warning: Corrosive substances Acids
Transport in bulk according to Annex II of MARPOL73/78 and the IBC	Code Not applicable.
Transport/Additional information:	
DOT Marine Pollutant (DOT):	No
UN "Model Regulation":	UN3261, Corrosive solid, acidic, organic, n.o.s. (2-(Bromoacetyl)naphthalene), 8, II
P405 Store locked up. P501 Dispose of contents/container in accordance with local <b>National regulations</b> This product is not listed in the U.S. Environmental Protection Agency Toy to research and development only. This product must be used by or direct	inutes. Remove contact lenses, if present and easy to do. Continue rinsing. ng. I/regional/national/international regulations.
product must not be used for commercial purposes or in formulations for c SARA Section 313 (specific toxic chemical listings) Substance is not li California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity, Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified	commercial purposes. listed.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. Il of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emp conformance with this Material Safety Data Sheet, or in combination with a	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. Il of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emp conformance with this Material Safety Data Sheet, or in combination with a Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. If of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the See Substance is not listed. been carried out. rmation gathered by them, and should make independent judgement of suitability of this ployees. This information is furnished without warranty, and any use of the product not in any other product or process, is the responsibility of the user.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emp conformance with this Material Safety Data Sheet, or in combination with a Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. If of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the See Substance is not listed. been carried out. rmation gathered by them, and should make independent judgement of suitability of this ployees. This information is furnished without warranty, and any use of the product not in any other product or process, is the responsibility of the user.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emp conformance with this Material Safety Data Sheet, or in combination with a Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. If of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the See Substance is not listed. been carried out. rmation gathered by them, and should make independent judgement of suitability of this ployees. This information is furnished without warranty, and any use of the product not in any other product or process, is the responsibility of the user.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emp conformance with this Material Safety Data Sheet, or in combination with a Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. If of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the See Substance is not listed. been carried out. rmation gathered by them, and should make independent judgement of suitability of this ployees. This information is furnished without warranty, and any use of the product not in any other product or process, is the responsibility of the user.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emp conformance with this Material Safety Data Sheet, or in combination with a Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. If of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the See Substance is not listed. been carried out. rmation gathered by them, and should make independent judgement of suitability of this ployees. This information is furnished without warranty, and any use of the product not in any other product or process, is the responsibility of the user.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emp conformance with this Material Safety Data Sheet, or in combination with a Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. If of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the See Substance is not listed. been carried out. rmation gathered by them, and should make independent judgement of suitability of this ployees. This information is furnished without warranty, and any use of the product not in any other product or process, is the responsibility of the user.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emp conformance with this Material Safety Data Sheet, or in combination with a Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. If of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the See Substance is not listed. been carried out. rmation gathered by them, and should make independent judgement of suitability of this ployees. This information is furnished without warranty, and any use of the product not in any other product or process, is the responsibility of the user.
California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Re The conditions of restrictions according to Article 67 and Annex XVII market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for us Chemical safety assessment: A Chemical Safety Assessment has not b 16 Other information Employers should use this information only as a supplement to other infor information to ensure proper use and protect the health and safety of emplorent conformance with this Material Safety Data Sheet, or in combination with a Department issuing SDS: Global Marketing Department Date of preparation / Iast revision 11/23/2015 / -	commercial purposes. listed. d individuals. egulations (EC) No. 1907/2006. Substance is not listed. If of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the See Substance is not listed. been carried out. rmation gathered by them, and should make independent judgement of suitability of this ployees. This information is furnished without warranty, and any use of the product not in any other product or process, is the responsibility of the user.

## Product name: 2-(Bromoacetyl)naphthalene

IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA) Page 5/5 Printing date 11/23/2015 Reviewed on 12/18/2008

(Contd. of page 4)