

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier

Product name: 3-Amino-4-chlorobenzoic acid Stock number: A12671, L05763 **CAS Number:** 2840-28-0 EC number: 220-635-9 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: Alfa Aesar Thermo Fisher Scientific Chemicals, Inc. Inerrito Fisher Scheman C. 30 Bond Street Ward Hill, MA 01835-8099 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) ! GHS07 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No information known. Label elements GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms 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/mist/vapours/spray. 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. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P405 WHMIS classification D2B - Toxic material causing other toxic effects Ţ Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1Flammàbility = 1 TIVITY 1 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: 2840-28-0 3-Amino-4-chlorobenzoic acid Identification number(s): EC number: 220-635-9 4 First-aid measures Description of first aid measures After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact Immediately wash with water and soap and rinse thoroughly. (Contd. on page 2)

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(Contd. of page 1) Seek immediate medical advice. 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 No further relevant information available. Indication of any immediate medical attention and special freatment needed No further relevant information available. 5 Fire-fighting measures Extinguishing media 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 chloride (HCl) Nitrogen oxides (NOx) 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. **Environmental preclations:** Do not allow material to be released to the environment will **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: Not required. Additional information: No data Exposure controls Personal protective equipment 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 eyes and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands:

Impervious gloves

The selection of suitable 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: Safety glasses Body protection: Protective work clothing.

## 9 Physical and chemical properties

Information on basic physical and chemical properties General Information Appearance: Form: Powder Color: Off-white Odor: Not determined Odor threshold: Not determined.	
pH-value:	Not applicable.
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	214-215 °C (417-419 °F) Not determined Not determined
Flash point: Flammability (solid, gaseous)	Not applicable Not determined.
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## Product name: 3-Amino-4-chlorobenzoic acid

Product name: 3-Amino-4-chlorober	Product name: 3-Amino-4-chlorobenzoic acid		
		(Contd. of page 2)	
Ignition temperature:	Not determined		
Decomposition temperature: Auto igniting:	Not determined Not determined.		
Danger of explosion:	Product does not present an explosion hazard.		
Explosion limits: Lower:	Not determined		
Upper: Vapor pressure:	Not determined Not applicable.		
Density:	Not determined		
Relative density Vapor density	Not determined. Not applicable.		
Evaporation rate Solubility in / Miscibility with	Not applicable.		
Water:	Not determined		
Partition coefficient (n-octanol/water) Viscosity:	: Not determined.		
dynamic: kinematic:	Not applicable. Not applicable.		
Other information	No further relevant information available.		
10 Stability and reactivity			
Reactivity No information known. Chemical stability Stable under recomi	mended storage conditions.		
Chemical stability Stable under recommended storage conditions. Thermal decomposition / conditions to be avoided: 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	t information available.		
Incompatible materials: Oxidizing ager Hazardous decomposition products: Carbon monoxide and carbon dioxide	115		
Carbon monoxide and carbon dioxide Hydrogen chloride (HCl)			
Nitrogen oxides			
11 Toxicological information			
Information on toxicological effects			
Acute toxicity: No effects known. LD/LC50 values that are relevant for o	Naccification: No data		
Skin irritation or corrosion: Causes sk	kin irritation.		
Eye irritation or corrosion: Causes sea Sensitization: No sensitizing effects kno	rious eye irritation. own		
Germ cell mutagenicity: No effects kno	own. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.		
Reproductive foxicity: No effects know	In.		
Specific target organ system toxicity	<ul> <li>repeated exposure: No effects known.</li> <li>single exposure: May cause respiratory irritation.</li> </ul>		
Aspiration hazard: No effects known			
Subacute to chronic toxicity: No effec Additional toxicological information:	ts known. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.		
42 Feelewisel information			
12 Ecological information Toxicity			
Aquatic toxicity: No further relevant inf	ormation available.		
Persistence and degradability No furth Bioaccumulative potential No further r	her relevant information available. relevant information available.		
Mobility in soil No further relevant infor	mation available.		
General notes:			
Do not allow material to be released to to to Do not allow undiluted product or large of	he environment without proper governmental permits. quantities to reach ground water, water course or sewage system.		
Avoid transfer into the environment. Results of PBT and vPvB assessmen			
<b>PBT:</b> Not applicable.			
vPvB: Not applicable. Other adverse effects No further releva	ant information available.		
13 Disposal considerations			
	or national regulations to ensure proper disposal.		
Uncleaned packagings: Recommendation: Disposal must be m	ade according to official regulations		
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<b>14 Transport information</b> Not a hazardous material for transportat	ion		
UN-Number			
DOT, IMDG, IATA	None		
UN proper shipping name DOT, IMDG, IATA	None		
Transport hazard class(es)			
DOT, ADR, IMDG, IATA			
Class Backing group	None		
Packing group DOT, IMDG, IATA	None		
Environmental hazards:	Not applicable.		
Special precautions for user	Not applicable.		
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(Contd. on page 4)

roduct name: 3-Amino-4-chlorobenzoic acid	
	(Contd. of page 3
Transport in bulk according to Annex II of MARPOL	
Transport/Additional information:	Not dangerous according to the above specifications.
DOT Marine Pollutant (DOT):	No
5 Regulatory information Safety, health and environmental regulations/legisla GHS label elements The product is classified and label Hazard pictograms GHS07 Signal word Warning Hazard statements H315 Causes skin irritation.	n <b>tion specific for the substance or mixture</b> led in accordance with 29 CFR 1910 (OSHA HCS)
H319 Causes serious eye irritation.         H335 May cause respiratory irritation.         Precautionary statements         P261       Avoid breathing dust/fume/gas/mist/v         P280       Wear protective gloves/protective clo         P305+P351+P338 IF IN EYES: Rinse cautiously with wa         P304+P340       IF INHALED: Remove person to fress         P405       Store locked up.         P501       Dispose of contents/container in accord         National regulations       All components of this product are listed on the Canadia         SARA Section 313 (specific toxic chemical listings)       California Proposition 65         Prop 65 - Chemicals known to cause cancer Substan       Prop 65 - Developmental toxicity, female Substance is prop 65 - Developmental toxicity, male Substance is in formation about limitation of use: For use only by te Other regulations, limitations and prohibitive regulations	othing/eyé protection/face protection. ater for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. th air and keep comfortable for breathing. cordance with local/regional/national/international regulations. vironmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. an Non-Domestic Substances List (NDSL). Substance is not listed. ted. ted. not listed. not listed. not listed. not listed. not listed. to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. To and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on th
6 Other information Employers should use this information only as a suppler information to ensure proper use and protect the health conformance with this Material Safety Data Sheet, or in	ment to other information gathered by them, and should make independent judgement of suitability of this and safety of employees. This information is furnished without warranty, and any use of the product not in combination with any other product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / - Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substance CAS: Chemical Abstracts Service (division of the American Chemical Soci HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (canada) LC30: Lethal concentration, 50 percent UPUB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	nt es lety)