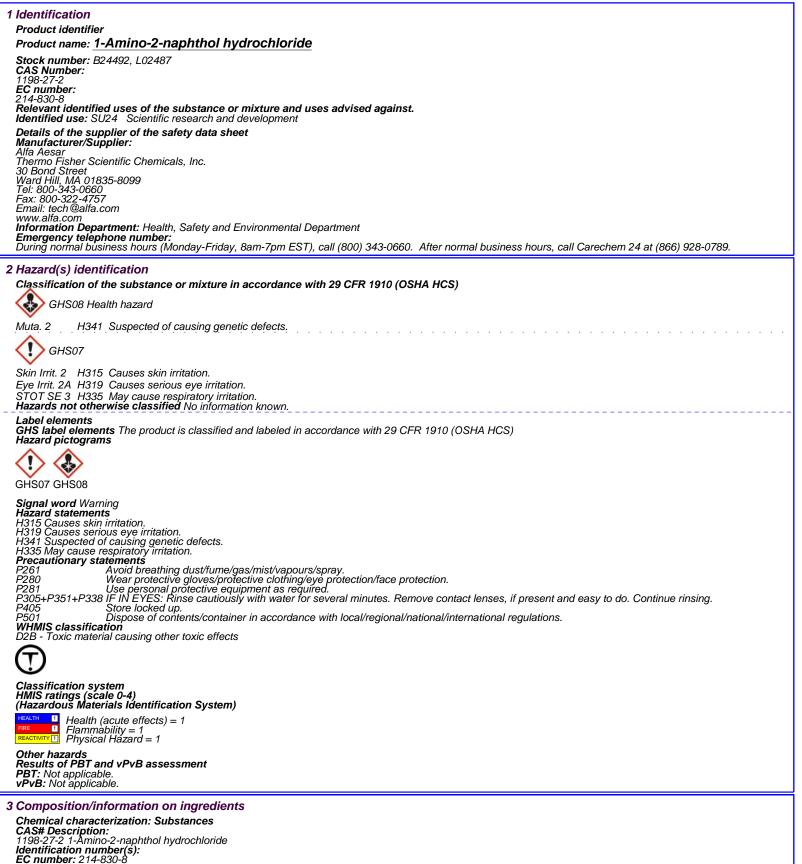


Safety Data Sheet per OSHA HazCom 2012



| Product name: 1-Amino-2-naphthol hydrochloride | |
|--|---------------------------|
| | (Contd. of page 1) |
| 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. 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 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 chloride (HCl) 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: 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 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 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 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: Protective work clothing. | |
| 9 Physical and chemical properties | |
| Information on basic physical and chemical properties General Information Appearance: Form: Powder Odor: Not determined | |
| | (Contd. on page 3) USA |

Product name: 1-Amino-2-naphthol hydrochloride

| | (Contd. of page | | |
|---|---|--|--|
| Odor threshold: | Not determined. | | |
| pH-value: | Not applicable. | | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: | 249-251 °C (480-484 °F) (dec) Not determined Not determined | | |
| Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting: | Not applicable Not determined. Not determined Not determined Not determined. | | |
| Danger of explosion: Product does not present an explosion hazard. Explosion limits: Not determined Upper: Not determined Vapor pressure: Not applicable. Density: Not determined. Relative density Not determined. Vapor density Not determined. Vapor density Not determined. Vapor density Not applicable. Evaporation rate Not applicable. Solubility in / Miscibility with Not determined. Water: Not determined. Yiscosity: Not determined. dynamic: Not applicable. dynamic: Not applicable. dynamic: Not applicable. other information No further relevant information available. Other information No further relevant information available. 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 avail Able. Conditions to avail Able. Information available. Incompatible materials: Oxidigr agents Kazardous decomposition products: | | | |
| Reproductive toxicity: No effects know Specific target organ system toxicity - Specific target organ system toxicity - Aspiration hazard: No effects known. Other information (about experimenta Tumorigenic effects have been observed o Mutagenic effects have been observed o Subacute to chronic toxicity: The Registry of Toxic Effects of Chemica Kidney, Ureter, Bladder - tumors. Tumorigenic - carcinogenic by RTECS c | in irritation. ious eye irritation. wn. ausing genetic defects. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. n. repeated exposure: No effects known. single exposure: May cause respiratory irritation. I toxicology): on tests with laboratory animals. n tests with bacteria. I Substances (RTECS) reports the following effects in laboratory animals: | | |

12 Ecological information

Cological Information
Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability No further relevant information available.
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes:
Do not allow material to be released to the environment without proper governmental permits.
Do not allow undiluted product or large 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 relevant information available. Other adverse effects No further relevant information available. 13 Disposal considerations

Waste treatment methods **Recommendation** Consult state, local or national regulations to ensure proper disposal. **Uncleaned packagings: Recommendation:** Disposal must be made according to official regulations.

USA (Contd. on page 4)

Product name: 1-Amino-2-naphthol hydrochloride

| | (Contd. of page 3) | |
|---|--|--|
| 14 Transport information Not a hazardous material for transportation. | | |
| UN-Number DOT, IMDG, IATA | None | |
| UN proper shipping name DOT, IMDG, IATA | None | |
| Transport hazard class(es) | | |
| DOT, ADR, IMDG, IATA Class | None | |
| Packing group DOT, IMDG, IATA | None | |
| Environmental hazards: | Not applicable. | |
| Special precautions for user | Not applicable. | |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. | | |
| Transport/Additional information: | Not dangerous according to the above specifications. | |
| DOT Marine Pollutant (DOT): | No | |

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms GHS07 GHS08 Signal word Warning Hazard statements Hazaro statements H315 Causes skin irritation. H319 Causes serious eye irritation. H341 Suspected of causing genetic defects. H335 May cause respiratory irritation. Precautionary statements P261 Avoid bre P280 Wear pro Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection. P281 Use personal protective equipment as required. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P405 P501 Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. National regulations All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL). SARA Section 313 (specific toxic chemical listings) Substance is not listed. California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity, female 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 antereal based (Prop 65 - Developmen Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed. not liste Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out. 16 Other information Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing SDS: Global Marketing Department 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 Substances CAS: Chemical Abstracts Service (division of the American Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Information System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal concentration, 50 percent CACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

USA