



1 Identification Product identifier Product name: 5-Aminoisoquinoline Stock number: L01223 CAS Number: 25-60-6 EC number: 214-408-3 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) S. GHS06 Skull and crossbones Acute Tox. 3 H301 Toxic if swallowed. ! 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 R GHS06 Signal word Danger Hazard statements H301 Toxic if swallowed. 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. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/... P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P405 P50 WHMIS classification D1B - Toxic material causing immediate and serious toxic effects D2B - Toxic material causing other toxic effects 1 Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) 
 HEALTH
 2

 FIRE
 1

 Flammability
 1

 REACTWITY
 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: 1125-60-6 5-Aminoisoquinoline Identification number(s): EC number: 214-408-3

# Pre

(C 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 Immediate medical advice. After syncontact Immediate medical advice. After syncontact Immediate medical advice. After syncontact Immediate medical advice. After syncontact 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. Indication of any immediate medical attention and special treatment needed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available. 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) 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. Wear self-containe the purporticeted persons away.	ontd. of page 1)
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 immediately wash with water and soap and rinse thoroughly. Seek immediately wash with water and soap and rinse thoroughly. Seek immediately wash with water and soap and rinse thoroughly. Seek immediately wash with water and soap and rinse thoroughly. Seek immediately wash with water and soap and rinse thoroughly. Seek immediately wash with water and soap and rinse thoroughly. Seek immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.         After swallowing Seek medical treatment. Information for 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) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear self-contained respirator. Wear self-contained respirator. Wear self-contained respirator.         6 Accidental release measures Personal precautions, protective equipment and emergency procedures	
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) 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	
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) 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	
Personal precautions, protective equipment and emergency procedures	
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 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 in the dark.         Further information about storage conditions: Keep container tightly sealed.         Store in cool, dry conditions in well sealed containers.         Protect from exposure to light.         Store in 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 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 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. Penetration time of glove material (in minutes) Not determined Eve protection: Safety classes	
Body protection: Protective work clothing. (Cc	

### Product name: 5-Aminoisoquinoline

Page 3/4 Printing date 11/23/2015 Reviewed on 10/28/2008

(Contd. of page 2) 9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: 'Form: Color: Powder Cream Odor: Not determined Odor threshold: Not determined pH-value: Not applicable. Change in condition Melting point/Melting range: 126-131 °C (259-268 °F) Boiling point/Boiling range: Sublimation temperature / start: Not determined Not determined Not applicable Not determined. Flash point: Flasmpolitity (solid, gaseous) Ignition temperature: Decomposition temperature: Not determined Not determined Auto igniting: Not determined Danger of explosion: Explosion limits: Lower: Product does not present an explosion hazard. Not determined Not determined Upper: Vapor pressure: Density: Relative density Not applicable. Not determined Not determined. Vapor density Evaporation rate Solubility in / Miscibility with Not applicable. Not applicable. Water: Insoluble Partition coefficient (n-octanol/water): Not determined. Viscosity: Not applicable. Not applicable. dynamic kinematic: Other information No further relevant information available. 10 Stability and reactivity Reactivity No information known. 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 information available. Incompatible materials: Oxidizing agents Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides 11 Toxicological information Information on toxicological effects Acute toxicity: Toxic if swallowed. LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: Causes skin irritation Eve irritation or corrosion: Causes serious eve irritation. Eve irritation or corrosion: Causes serious eve irritation. Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: May cause respiratory irritation. Aspiration hazard: No effects known. Subacute to chronic toxicity: No effects known. 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 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: Contrain 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.

#### 13 Disposal considerations

#### Waste treatment methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

(Contd. on page 4)

## Product name: 5-Aminoisoguinoline (Contd. of page 3) Uncleaned packagings: Recommendation: Disposal must be made according to official regulations. 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 GHS06 Signal word Danger Hazard statements H301 Toxic if swallowed H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/... P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. P405 P501 Dispose of contents/container in accordance with local/regional/national/international regulations. National regulations This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must 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 or in formulations for commercial purposes. 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 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 individuals. 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 super the characteristics. market and use must be observed. Substance is 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. 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 Date of preparation / last revision 11/23/2015 / Abbreviations and accoryms: RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) GAC: International Ovil Aviation Organization ICAO: Thermational Ovil Aviation Organization ICAO: Thermational Ovil Aviation Organization ICAO: Thermational Air Transport association ICAO: Thermational Martime Code for Dangerous Goods DOT: US Department of Transport Association ITATA: International Air Transport Association ICAO: Lettal concentration, 50 percent LD50: Lethal concentration, 50 percent LD50: Lethal concentration, 50 percent VPVB: very Persistent and very Bioaccumulative ACGIH: American Chernical Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) IATP: National Toxicology Program (USA) IATP: National Toxicology Program (USA) IATP: National Toxicology Program (USA) USA