

| Reviewed on 11/05   | /2014  |
|---|--------|
| 1 Identification  |        |
| Product identifier  |        |
| Product name: (R)-4-(1-Aminoethyl)phenol  |        |
| Stock number: H63001<br>CAS Number:   |        |
| 134855-89-3<br><b>Relevant identified uses of the substance or mixture and uses advised against.<br/>Identified use:</b> SU24 Scientific research and development   |        |
| Details of the supplier of the safety data sheet<br>Manufacturer/Supplier:  |        |
| Alfa Aesar<br>Thermo Fisher Scientific Chemicals, Inc.  |        |
| 30 Bond Street<br>Ward Hill. MA 01835-8099  |        |
| Tel: 800-343-0660   |        |
| Fax: 800-322-4757<br>Email: tech@alfa.com<br>www.alfa.com   |        |
| Information Department: Health, Safety and Environmental Department<br>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.<br>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)<br>Hazard pictograms   |        |
|   |        |
| GHS05   |        |
| Signal word Danger  |        |
| Häzard statements   |        |
| H314 Causes severe skin burns and eye damage. Precautionary statements  |        |
| P260 Do not breathe dust/fume/gas/mist/vapours/spray.<br>P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.   |        |
| P260 Do not breathe dust/fume/gas/mist/vapours/spray.<br>P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.<br>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |        |
| P405 Store locked up.<br>P501 Dispose of contents/container in accordance with local/regional/national/international regulations.   |        |
| WHMIS classification<br>D2B <sub>-</sub> Toxic material causing other toxic effects   |        |
| E - Corrosive material  |        |
|   |        |
| Classification system   |        |
| HMIS ratings (scale 0-4)<br>(Hazardous Materials Identification System)   |        |
|   |        |
| HEALTH B Health (acute effects) = 3<br>FIRE I Flammability = 1<br>REACTIVITY I Physical Hazard = 1  |        |
| Other hazards   |        |
| Results of PBT and vPvB assessment<br>PBT: Not applicable.  |        |
| vPvB: Not applicable.   |        |
| 3 Composition/information on ingredients  |        |
| Chemical characterization: Substances<br>CAS# Description:  |        |
| 134855-89-3 (R)-4-(1-Aminoethyl)phenol  |        |
| 4 First-aid measures  |        |
| Description of first aid measures<br>General information Immediately remove any clothing soiled by the product.   |        |
| After inhalation  |        |
| Supply fresh air. If required, provide artificial respiration. Keep patient warm.<br>Seek immediate medical advice.<br>After skin contact   |        |
| Immediately wash with water and soap and rinse thoroughly.<br>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. (Contd. on p   | age 2) |
|   | UUA    |
|   |        |

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Information for doctor Most important symptoms and effects, both acute and delayed Causes severe skin burns. Causes serious eve 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 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 product to reach sewage system or any water course. 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. 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: Refrigerate Information about storage in one common storage facility: Do not store together with acids. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. Refriderate

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: 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

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.

Recommended filter device for short term use: Use a respirator with type P100 (USA) or P3 (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 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 Full face protection

Body protection: Protective work clothing.

### 9 Physical and chemical properties

| Information on basic<br>General Information | physical and chemical properties |  |
|---|----------------------------------|--|
| Appearance:<br>Form:                        | Solid                            |  |
| Color:<br>Odor:                             | White<br>Not determined          |  |
|   |                                  |  |

# Product name: (R)-4-(1-Aminoethyl)phenol

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| Product name: (R)-4-(1-Aminoethyl)p   | phenol   |                           |  |  |
|---|--|---------------------------|--|--|
|   |  | (Contd. of page 2)        |  |  |
| Odor threshold:   | Not determined.  |                           |  |  |
| pH-value:   | Not applicable.  |                           |  |  |
| Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Sublimation temperature / start:<br>Flammability (solid, gaseous)<br>Ignition temperature:<br>Decomposition temperature:<br>Auto igniting:   | ing point/Melting range:       Not determined         ing point/Boiling range:       Not determined         limation temperature / start:       Not determined         nability (solid, gaseous)       Not determined         in temperature:       Not determined         nposition temperature:       Not determined |                           |  |  |
|   | Not determined. Not determined.  |                           |  |  |
| Danger of explosion:<br>Explosion limits:<br>Lower:<br>Upper:<br>Vapor pressure:<br>Density:<br>Relative density<br>Vapor density<br>Evaporation rate<br>Solubility in / Miscibility with<br>Water:<br>Partition coefficient (n-octanol/water):<br>Viscosity:<br>dynamic:<br>kinematic:<br>Other information  | Not determined<br>Not determined<br>Not applicable.<br>Not determined<br>Not determined.<br>Not applicable.<br>Not applicable.   |                           |  |  |
| 10 Stability and reactivity   |  |                           |  |  |
| 10 Stability and reactivity<br>Reactivity No information known.<br>Chemical stability Stable under recomm<br>Thermal decomposition / conditions to<br>Possibility of hazardous reactions Rea<br>Conditions to avoid No further relevant<br>Incompatible materials:<br>Acids<br>Oxidizing agents<br>Heat<br>Hazardous decomposition products:<br>Carbon monoxide and carbon dioxide<br>Nitrogen oxides   | nended storage conditions.<br><b>5 be avoided:</b> Decomposition will not occur if used and stored according to specifications.<br>acts with strong oxidizing agents<br>information available.   |                           |  |  |
| 11 Toxicological information<br>Information on toxicological effects<br>Acute toxicity: Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.<br>LD/LC50 values that are relevant for classification: No data<br>Skin irritation or corrosion: Causes severe skin burns.<br>Eye irritation or corrosion: Causes serves eskin burns.<br>Eye irritation or corrosion: Causes serves eskin burns.<br>Eye irritation: No sensitizing effects known.<br>Germ cell mutagenicity: No effects known.<br>Carcinogenicity: No effects known.<br>Specific target organ system toxicity - repeated exposure: No effects known.<br>Specific target organ system toxicity - single exposure: No effects known.<br>Aspiration hazard: No effects known.<br>Subacute to chronic toxicity: No effects known.<br>Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. |  |                           |  |  |
| 12 Ecological information<br>Toxicity<br>Aquatic toxicity: No further relevant information available.<br>Persistence and degradability No further relevant information available.<br>Bioaccumulative potential No further relevant information available.<br>Mobility in soil No further relevant information available.<br>Additional ecological information:<br>General notes:<br>Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.<br>Avoid transfer into the environment.<br>Results of PBT and vPvB assessment<br>PBT: Not applicable.<br>vPvB: Not applicable.<br>Other adverse effects No further relevant information available.   |  |                           |  |  |
| 13 Disposal considerations<br>Waste treatment methods<br>Recommendation Consult state, local or national regulations to ensure proper disposal.<br>Uncleaned packagings:<br>Recommendation: Disposal must be made according to official regulations.  |  |                           |  |  |
| 14 Transport information  |  |                           |  |  |
| UN-Number   | 1010050  |                           |  |  |
| DOT, IMDG, IATA<br>UN proper shipping name<br>DOT   | UN3259<br>Amines, solid, corrosive, n.o.s. ((R)-4-(1-Aminoethyl)phenol)<br>AMINES, SOLID, CORROSIVE, N.O.S. ((R)-4-(1-Aminoethyl)phenol  |                           |  |  |
| IMDG, IATA  | AMINES, SOLID, CORROSIVE, N.O.S. ((R)-4-(1-Aminoethyl)phen   | ol)<br>(Contd. on page 4) |  |  |

| Safety Data Sheet<br>per OSHA HazCom 2012  | Page 4/4<br>Printing date 11/24/2015<br>Reviewed on 11/05/2014                      |  |  |  |
|--|---|--|--|--|
| Product name: (R)-4-(1-Aminoethyl)phenol   | Neviewed on Thouzon   |  |  |  |
|  | (Contd. of page 3)  |  |  |  |
| Transport hazard class(es)<br>DOT  |   |  |  |  |
|  |   |  |  |  |
| Class<br>Label   | 8 Corrosive substances.   |  |  |  |
| Class<br>Label   | 8 (C8) Corrosive substances   |  |  |  |
| IMDG, IATA   | ů – – – – – – – – – – – – – – – – – – –   |  |  |  |
|  |   |  |  |  |
| Class<br>Label   | 8 Corrosive substances.<br>8  |  |  |  |
| Packing group<br>DOT, IMDG, IATA   | <i>III</i>  |  |  |  |
| Environmental hazards:   | Not applicable.   |  |  |  |
| Special precautions for user<br>EMS Number:  | Warning: Corrosive substances<br>F-A,S-B  |  |  |  |
| Segregation groups   | Alkális   |  |  |  |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Co<br>Transport/Additional information:   | ode Not applicable.   |  |  |  |
| DOT  |   |  |  |  |
| Marine Pollutant (DOT):<br>UN "Model Regulation":  | No<br>UN3259, Amines, solid, corrosive, n.o.s. ((R)-4-(1-Aminoethyl)phenol), 8, III |  |  |  |
| 15 Regulatory information  |   |  |  |  |
| GHS05 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+P3351 if on skin for hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P3351 if on skin for hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P3351 if if NEXES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301+P330+P311 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P405 Store locked up. 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 is not listed on the Canadian Domestic Substance is not listed. California Proposition 65 Prop 65 - Chemical Isitings) Substance is not listed. Prop 65 - Developmental toxicity, Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, tende Substance is not listed. Prop 65 - Developmental toxicity, tende Substance is not listed. Prop 65 - Developmental toxicity, tende Substance is not listed. Prop 65 - Developmental toxicity, tende Substance is not listed. Prop 65 - Developmental toxicity, tende Substance is not listed. Prop 65 - Developmental toxicity, tende Substance is not listed. Prop 65 - Developmental toxicity, tende Substance is not listed. Prop 65 - Developmental toxicity, tende Substance is not listed. Prop 65 - Developmental toxicity, tend |   |  |  |  |
| Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.<br>Chemical safety assessment: A Chemical Safety Assessment has not been carried out.<br>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 Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms:  ADR: Accord europeans une transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation ATA: International Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Information System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LCGO: Lethal dose, 50 percent WPVB, very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) USA — USA —  |   |  |  |  |
| NTP: National Toxicology Program (USA)<br>IARC: International Agency for Research on Cancer<br>EPA: Environmental Protection Agency (USA)  | USA   |  |  |  |