| Revision: | 21.0 | 8.2010 | ) |
|-----------|------|--------|---|

| Printing date 21.08.2010   | Revision: 21.08.2010   |  |
|--|--|--|
| 1 Identification of substance  |  |  |
| Product details  |  |  |
| Trade name   | 1-Chloro-7-phenylheptane   |  |
| Stock number:  | L08817   |  |
| Manufacturer/Supplier:   | Alfa Aesar GmbH & Co.KG  |  |
|  | Benzstrasse 3 E-mail: gcat@matthey.com<br>D-76185 Karlsruhe / Germany www.alfa-chemcat.com   |  |
| Informing department:  | Product safety department  |  |
| Emergency information:   | Giftnotruf Universität Mainz / Poison Information Center Mainz<br>www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240   |  |
|  |  |  |
| 2 Hazards identification   |  |  |
| Hazard designation:<br>Information pertaining to particular dangers                  | void   |  |
| Information pertaining to particular dangers<br>for man and environment              | Not applicable   |  |
| GHS label elements   | Void   |  |
| 3 Composition/information on ingredient  | S  |  |
| Chemical characterization:   | 4  Oblass 7 share the stars (CACH 74424 47 4)  |  |
| Designation: (CAS#)  | 1-Chloro-7-phenylheptane (CAS# 71434-47-4)   |  |
| 4 First aid measures   |  |  |
| After inhalation   | Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms   |  |
|  | persist.<br>Seek immediate medical advice.   |  |
| After skin contact   | Instantly 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 doctor.   |  |
| After swallowing   | Seek medical treatment.  |  |
| 5 Fire fighting measures   |  |  |
| Suitable extinguishing agents<br>Special hazards caused by the material, its         | CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.   |  |
| Special hazards caused by the material, its<br>products of combustion or flue gases: | Can be released in case of fire:   |  |
| ,  | Carbon monoxide and carbon dioxide<br>Hydrogen chloride (HCI)  |  |
| Protective equipment:  | Wear self-contained breathing apparatus.   |  |
|  | Wear full protective suit.   |  |
| 6 Accidental release measures  |  |  |
| Person-related safety precautions:   | Wear protective equipment. Keep unprotected persons away.<br>Ensure adequate ventilation   |  |
| Measures for environmental protection  | Ensure adequate ventilation<br>Do not allow material to be released to the environment without proper governmental permits   |  |
| Measures for environmental protection:<br>Measures for cleaning/collecting:          | Do not allow material to be released to the environment without proper governmental permits.<br>Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). |  |
| Additional information:  | See Section 7 for information on safe handling<br>See section 8 for information on personal protection equipment.  |  |
|  | See Section 13 for information on disposal.  |  |
| 7 Handling and storage   |  |  |
| Handling   |  |  |
| Information for safe handling:   | Keep containers tightly sealed.<br>Store in cool, dry place in tightly closed containers.  |  |
|  | No special precautions necessary if used correctly.  |  |
| Information about protection against<br>explosions and fires:                        | Keep ignition sources away - Do not smoke.   |  |
| Storage  |  |  |
| Requirements to be met by storerooms and<br>containers:                              | No special requirements.   |  |
| Information about storage in one common  |  |  |
| storage facility:<br>Further information about storage                               | Store away from oxidizing agents.  |  |
| conditions:  | Keep container tightly sealed.   |  |
|  | Store in cool, dry conditions in well sealed containers.   |  |
| 8 Exposure controls and personal protection  |  |  |
| Additional information about design of<br>technical systems:                         | Property operating chemical fume bood designed for bazardous chemicals and baying an overage face value in   |  |
| technical systems:   | Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.  |  |
| Components with critical values that require   |  |  |
| monitoring at the workplace:<br>Additional information:                              | Not required.<br>No data   |  |
| Personal protective equipment  |  |  |
| General protective and hygienic measures   | The usual precautionary measures should be adhered to in handling the chemicals.<br>Keep away from foodstuffs, beverages and food.   |  |
|  | Instantly remove any soiled and impregnated garments.<br>Wash hands during breaks and at the end of the work.  |  |
| Breathing equipment:   | Wash hands during breaks and at the end of the work.<br>Use breathing protection with high concentrations.   |  |
| Protection of hands:   | Check protective gloves prior to each use for their proper condition.  |  |
| Material of gloves   | The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.                                    |  |
| Penetration time of alove material   | Impervious gloves<br>Not determined  |  |
| Penetration time of glove material<br>Eye protection:                                | Safety glasses   |  |
| Body protection:   | Protective work clothing.  |  |
| 9 Physical and chemical properties:  |  |  |
| General Information  |  |  |
| Form:  | Liquid   |  |
| Colour:  | Colourless (Contd. on page 2)  |  |
| L  | (Contd. on page 2)<br>GB   |  |
|  |  |  |

## Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 21.08.2010

Page 2/2

| Trade name 1-Chloro-7-phenylheptane  |  |  |
|--|--|--|
|  | (Contd. of page 1)   |  |
| Smell:   | Not determined   |  |
| Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Sublimation temperature / start:  | Not determined<br>94-96°C (0.3 mmHg)<br>Not determined   |  |
| Flash point:   | Not determined   |  |
| Ignition temperature:  | Not determined   |  |
| Decomposition temperature:   | Not determined   |  |
| Danger of explosion:   | Product is not explosive.  |  |
| Critical values for explosion:<br>Lower:<br>Upper:   | Not determined<br>Not determined   |  |
| Steam pressure:  | Not determined   |  |
| Density  | Not determined   |  |
| Solubility in / Miscibility with<br>Water:   | Not miscible or difficult to mix   |  |
| 10 Stability and reactivity<br>Thermal decomposition / conditions to be<br>avoided:<br>Materials to be avoided:<br>Dangerous reactions:<br>Dangerous products of decomposition:  | No decomposition if used and stored according to specifications.<br>Oxidizing agents<br>No dangerous reactions known<br>Carbon monoxide and carbon dioxide<br>Hydrogen chloride (HCI)  |  |
| 11 Toxicological information<br>Acute toxicity:<br>Primary irritant effect:<br>on the skin:<br>on the eye:<br>Sensitization:<br>Additional toxicological information:  | May cause irritation<br>May cause irritation<br>No sensitizing effect known.<br>To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.<br>No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA<br>or ACGIH.  |  |
| 12 Ecological information:   |  |  |
| Additional ecological information:<br>General notes:   | Generally not hazardous for water.<br>Do not allow material to be released to the environment without proper governmental permits.   |  |
| 13 Disposal considerations   |  |  |
| Product:<br>Recommendation   | Hand over to disposers of hazardous waste.<br>Must be specially treated under adherence to official regulations.<br>Consult state, local or national regulations for proper disposal.  |  |
| Uncleaned packagings:<br>Recommendation:   | Disposal must be made according to official regulations.   |  |
| 11 Transport information   |  |  |
| 14 Transport information<br>Land transport ADR/RID and GGVS/GGVE (c<br>ADR/RID-GGVS/E Class:   | cross-border/domestic)<br>None   |  |
| Maritime transport IMDG/GGVSea:<br>IMDG/GGVSea Class:<br>Marine pollutant:   | None<br>No   |  |
| Air transport ICAO-TI and IATA-DGR:<br>ICAO/IATA Class:  |  |  |
| ICAU/IATA Class:   | None   |  |
| Transport/Additional information:  | Not dangerous according to the above specifications.   |  |
| 15 Regulatory information<br>Designation according to EC guidelines:   | Observe the normal safety regulations when handling chemicals<br>The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous<br>Materials (GefStoffV).   |  |
| National regulations<br>Information about limitation of use:<br>Water hazard class:  | For use only by technically qualified individuals.<br>Generally not hazardous for water.   |  |
| 16 Other information:<br>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 data specification sheet<br>Contact:<br>Abbreviations and acronyms:   | Health, Safety and Environmental Department. Zachariah Holt ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Maritime Code for Dangerous Goods IATA: International Maritime Code for Dangerous Goods IATA: International Maritime Code for International Air Transport Association IATA: International Civil Aviation Organization ICAO: International Civil Aviation Organization ICAO: International Instructions by the "International Civil Aviation Organization" (ICAO) GHS: Globally Harmonized System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society) |  |
|  | CAS: Chemical Abstracts Service (division of the American Chemical Society) GB   |  |