| Revision: | 23.07.2010 |
|-----------|------------|

| Printing date 23.07.2010   | Revision: 23.07.2010  |  |
|--|---|--|
| 1 Identification of substance<br>Product details                             |   |  |
| Trade name   | Cyclohexyl ethyl ketone   |  |
| Stock number:  | B20409  |  |
| 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  |  |
|  | www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240  |  |
| 2 Hazards identification   |   |  |
| Hazard designation:  | void  |  |
| Information pertaining to particular dangers<br>for man and environment      | Not applicable  |  |
| GHS label elements   | Void  |  |
| 3 Composition/information on ingredients                                     | 5   |  |
| Chemical characterization:   |   |  |
| Designation: (CAS#)  | Cyclohexyl ethyl ketone (CAS# 1123-86-0): 100%  |  |
| Identification numbér(s):<br>EINECS Number:                                  | 214-380-2   |  |
|  | 214 300 2   |  |
| 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 eve for several minutes under running water. Then consult doctor.  |  |
| After swallowing   | Seek medical treatment.   |  |
| 5 Fire fighting measures   |   |  |
|  | CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.  |  |
| Suitable extinguishing agents<br>Special hazards caused by the material, its |   |  |
| products of combustion or flue gases:  | Can be released in case of fire:<br>Carbon monoxide and carbon dioxide  |  |
| Protective equipment:  | Wear self-contained breathing apparatus.<br>Wear full protective suit.  |  |
|  |   |  |
| 6 Accidental release measures  |   |  |
| Person-related safety precautions:   | Wear protective equipment. Keep unprotected persons away.   |  |
| 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).<br>See Section 7 for information on safe handling  |  |
| Additional information:  | See Section 7 for information on safe handling<br>See section 8 for information on personal protection equipment.   |  |
|  | See section 8 for information on personal protection equipment.<br>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                                     | No operiol requiremente   |  |
| containers:<br>Information about storage in one common                       | No special requirements.  |  |
| 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                                       | Droporty operation chemical functioned designed for benerical sections of the designed for |  |
| 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.  |  |
|  | Keep away from foodstuffs, beverages and food.  |  |
| Describing a sector of   | Instantly rémove any soiled and impregnated garments.<br>Wash hands during breaks and at the end of the work.   |  |
| Breathing equipment:<br>Protection of hands:                                 | Use breathing protection with high concentrations.<br>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   |  |
| Eye protection:  | and varies from manufacturer to manufacturer.   |  |
| Body protection:   | Protective work clothing.   |  |
| 9 Physical and chemical properties:  |   |  |
| General Information  |   |  |
| Form:  | Oily  |  |
| Smell:   | Liquid<br>Not determined  |  |
|  | (Contd. on page 2)<br>GB  |  |
|  | CB  |  |

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

Printing date 23.07.2010

Revision: 23.07.2010

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|---|--|
| Trade name Cyclohexyl ethyl ketone  |  |
|   | (Contd. of page 1)   |
| Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Sublimation temperature / start:   | Not determined<br>Not determined<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 at 20°C   | 0.91 g/cm <sup>3</sup>   |
| 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   |
| 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:<br>Additional ecological information:<br>General notes:  | Water hazard class 1 (Self-assessment): slightly hazardous for water.<br>Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.<br>Do not allow material to be released to the environment without proper governmental permits.  |
| 13 Disposal considerations  |  |
| Product:<br>Recommendation  | Consult state, local or national regulations for proper disposal.<br>Hand over to disposers of hazardous waste.<br>Must be specially treated under adherence to official regulations.  |
| Uncleaned packagings:<br>Recommendation:  | Disposal must be made according to official regulations.   |
| 14 Transport information  |  |
| Land transport ADR/RID and GGVS/GGVE (c<br>ADR/RID-GGVS/E Class:  | ross-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:   | 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:  | For use only by technically qualified individuals.   |
| Water hazard class:   | Water hazard class 1 (Self-assessment): slightly hazardous for water.  |
| this information to ensure proper use and prote<br>not in conformance with this Material Safety Da<br>Department issuing data specification sheet                               | a supplement to other information gathered by them, and should make independent judgement of suitability of<br>ct the health and safety of employees. This information is furnished without warranty, and any use of the product<br>ta Sheet, or in combination with any other product or process, is the responsibility of the user.<br>:: Health, Safety and Environmental Department.   |
| Contact:<br>Abbreviations and acronyms:   | Zachariah Holt<br>ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of<br>Dangerous Goods by Road)<br>RID: Réglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International<br>Transport of Dangerous Goods by Rail)<br>IMD6: International Maritime Code for Dangerous Goods<br>IATA: International Maritime Code for Dangerous Goods<br>IATA: International Maritime Code for Dangerous Goods<br>IATA: International Civil Aviation Organization<br>ICAC: International Civil Aviation Organization<br>ICAC: International Instructions by the "International Civil Aviation Organization" (ICAO)<br>GBS: Globally Harmonized System of Classification and Labelling of Chemicals<br>EINECS: European Inventory of Existing Commercial Chemical Substances<br>CAS: Chemical Abstracts Service (division of the American Chemical Society)<br>GB |