

MATERIAL SAFETY DATA SHEET

3-O-Ethyl-L ascobic acid

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| 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY | |
| COMMON NAME | 3-O-Ethyl-L ascobic acid |
| CAS No | 86404-04-8 |
| COMPANY NAME | TCL Ingredients Co.,Ltd. |
| 2. INFORMATION ON SUBSTANCE | |
| PRINCIPAL HAZARDOUS COMPONENT (S) | None |
| APPEARANCE | White ciystalline powder |
| 3. HAZARDS INFORMATION ON SUBSTANCE | |
| HEALTH HAZARDS | No data available yet |
| FIRE AND EXPLOSION HAZARDS | No data available yet |
| ENVIRONMENTAL HAZARDS | No environmental hazards as far as to our knowledge. |
| 4. FIRST-AID MEASURES | |
| INHALATION | Remove to well-ventilated area. Seek medical attention. |
| SKIN CONTACT | Washed by soap water or clear water if it comes into contact with skin. |
| EYE CONTACT | Washed by clear water if contacting with eyes. Sent to hospital if having excessive intake by mistake. |
| INGESTION | Wash out mouth with water if conscious. Seek medical attention. |
| .PROTECT MEASURES | Wearing protective clothes and safety gloves when operating. |
| 5. FIRE-FIGHTING MEASURES | |
| EXTINGUISHER MEDIA | Water Spray, Carbon Dioxide, Dry Chemical Powder or other appropriate form. |
| SPECIAL FIRE FIGHTING PROCEDURES | Wear self-containing breathing apparatus against toxic fumes and protective clothing. |
| FIRE & EXPLOSION HAZARDS | Not combustible, flammable or explosive. Emits toxic fumes under fire conditions. |
| 6. ACCIDENTAL RELEASE MEASURES | |
| STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED | Wear protective equipment. Sweep up, place in proper container for waste disposal, do not get water inside container. Avoid raising dust. Ventilate area & wash site after material pickup is complete. |



INGREDIENTS

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| CLEANING METHODS | Wash premises, equipment and working surfaces with water. |
| WASTE DISPOSALS METHODS | Dispose of as solid organic waste in accordance with national and local regulations |
| 7. HANDLING & STORAGE | |
| HANDLING&STORAGE | Keep far away from kindled material, heat source and direct light. Keep the container airtight. Should be separately stored form oxidant and edible chemical compound. |
| 8. EXPOSURE CONTROLS / PERSONAL PROTECTION | |
| OCCUPATIONAL EXPOSURE LIMITS | |
| GB | TWA: Not established |
| D | TWA: Not established |
| USA | TWA/TLV: Not established |
| USA | TWA/STEL: Not established |
| VENTILATION | Local exhaust may be needed. |
| PERSONAL PROTECTIVE EQUIPMENT | Protective goggles, gloves. Coveralls, apron, boots. Respiratory protection with dust-filter may be needed. |
| 9. PHYSICAL AND CHEMICAL PROPERTIES | |
| APPEARANCE | White ciystalline powder |
| BOILING POINT | n.a. |
| MELTING POINT | Decompose |
| AUTO-IGNITION TEMP. | n.a. |
| WATER SOLUBILITY | all |
| FLASH POINT | n.a. |
| EXPLOSIVE LIMITS IN AIR | n.a. |
| 10. STABLITY & REACTIVITY | |
| STABILITY & REACTIVITY | The compound is stable at room temperature in closed containers. |
| CONDITIONS TO AVOID | Incompatible materials, light, dust generation, moisture, excess heat, strong oxidants. |
| MATERIALS TO AVOID | Oxidizing agents |
| HAZARDOUS DECOMPOSITION PRODUCTS | Carbon monoxide, carbon dioxide. |
| 11. TOXICOLOGICAL INFORMATION | |
| ACUTE ORAL LD50 (MICE/RATS) | |
| IRRITATION TESTS (EYES) | Not known |
| INHALATION | Not known |
| 12. ECOLOGICAL INFORMATION | |
| | No Data available yet. |
| 13. DISPOSAL CONSIDERATIONS | |



INGREDIENTS

14. TRANSPORT INFORMATION

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|------|--------|-----------------------------------|
| UN | UN No. | Not classified as dangerous goods |
| ADR | | Not restricted |
| DGR | | Not restricted |
| IMDG | | Not restricted |

15. REGULATORY INFORMATION

Data not available

16. OTHER INFORMATION

it has been proved no offensive smell, no infective danger or any other danger when transported.