

| 1 | Identification  |
|---|---|
|   | Product identifier<br>Product name: <b>5,7-Dichloro-8-hydroxyquinoline</b>  |
|   | Stock number: B23809<br>CAS Number:   |
|   | 773-76-2<br>EC number:  |
|   | 212-258-3<br>Relevant identified uses of the substance or mixture and uses advised against.<br>Identified use: 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.<br>30 Bond Street  |
|   | Ward Hill, MA 01835-8099<br>Tel: 800-343-0660<br>Fax: 800-322-4757  |
|   | Email: tech@alfa.com<br>www.alfa.com<br>Information Department: Health, Safety and Environmental Department   |
|   | Emergency telephone number:<br>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)  |
|   | GHS07   |
|   | Skin Irrit. 2 H315 Causes skin irritation.<br>Eye Irrit. 2A H319 Causes serious eye irritation.   |
|   | STOT SE 3 H335 May cause respiratory irritation.<br>Hazards not otherwise classified No information known.  |
|   | Label elements<br>GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)<br>Hazard pictograms   |
|   |   |
|   | GHS07   |
|   | Signal word Warning   Hazard statements   H315 Causes skin irritation.   H319 Causes serious eye irritation.   H335 May cause respiratory 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.   P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.   P304+P340 IF INHALED; Remove person to fresh air and keep comfortable for breathing. |
|   | P405 Store locked up.<br>P501 Dispose of contents/container in accordance with local/regional/national/international regulations.<br><b>WHMIS classification</b><br>D2B - Toxic material causing other toxic effects  |
|   |   |
|   | Classification system<br>HMIS ratings (scale 0-4)<br>(Hazardous Materials Identification System)<br>HEALTH I Health (acute effects) = 1<br>Flammability = 1   |
|   | Rescrivery: Physical Hazard = 1   Other hazards   Results of PBT and vPvB assessment   PBT: Not applicable.   vPvB: Not applicable.   |
| 3 | Composition/information on ingredients<br>Chemical characterization: Substances<br>CAS# Description:<br>773-76-2 5,7-Dichloro-8-hydroxyquinoline<br>Identification number(s):<br>EC number: 212-258-3   |
| 4 | First-aid measures<br>Description of first aid measures   |
|   | After inhalation<br>Supply fresh air. If required, provide artificial respiration. Keep patient warm.   |
|   | Se'ek îmmediate medical advice.<br>After skin contact<br>Immediately wash with water and soap and rinse thoroughly.   |
|   | (Contd. on page 2)<br>USA   |
|   |   |

## Product name: 5,7-Dichloro-8-hydroxyquinoline

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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. 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 freatment needed No further relevant information available. 5 Fire-fighting measures Extinguishing media 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) Hydrogen chloride (HCI) 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 material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: 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. Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. 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: Not required. Additional information: No data Exposure controls Personal protective equipment 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 The selection of suitable 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. Eye protection: Safety glasses Body protection: Protective work clothing. 9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: Form: Powder

| Color:<br>Odor:<br>Odor threshold:  | Cream<br>Not determined<br>Not determined.                  |
|---|---|
| pH-value:   | Not applicable.   |
| Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Sublimation temperature / start: | 180-182 °C (356-360 °F)<br>Not determined<br>Not determined |
| Flash point:<br>Flammability (solid, gaseous)   | Not applicable<br>Not determined.                           |
|   | (Cantol an agent 2)   |

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|--|---|----------------|--|--|
| Ignition temperature:<br>Decomposition temperature:<br>Auto igniting:  | Not determined<br>Not determined<br>Not determined.   |                |  |  |
| Danger of explosion:   | Product does not present an explosion hazard.   |                |  |  |
| Explosion limits:<br>Lower:  | Not determined  |                |  |  |
| Upper:   | Not determined  |                |  |  |
| Vapor pressure:  | Not applicable.   |                |  |  |
| Density:<br>Relative density   | Not determined<br>Not determined.   |                |  |  |
| Vapor density  | Not applicable.   |                |  |  |
| Evaporation rate   | Not applicable.   |                |  |  |
| Solubility in / Miscibility with<br>Water:<br>Partition coefficient (n-octanol/wa  | Not determined  |                |  |  |
| Viscosity:<br>dynamic:   | Not applicable.   |                |  |  |
| kinematic:   | Not applicable.   |                |  |  |
| Other information  | No further relevant information available.  |                |  |  |
| ) Stability and reactivity<br>Reactivity No information known.   |   |                |  |  |
| <b>Chemical stability</b> Stable under re  | commended storage conditions.<br><b>ons to be avoided</b> : Decomposition will not occur if used and stored according to specifications.  |                |  |  |
| Thermal decomposition / condition<br>Possibility of hazardous reaction   | ons to be avoided: Decomposition will not occur if used and stored according to specifications.   |                |  |  |
| Conditions to avoid No further rele  | s No Gargerous reactions known  |                |  |  |
| Incompatible materials: Oxidizing  | agents  |                |  |  |
| Hazardous decomposition produ  | cfs:  |                |  |  |
| Carbon monoxide and carbon dioxi<br>Nitrogen oxides  | ae  |                |  |  |
| Hydrogen chloride (HCl)  |   |                |  |  |
| Toxicological information  | rfc   |                |  |  |
| Acute toxicity: No effects known.  |   |                |  |  |
| LD/LC50 values that are relevant   | for classification:   |                |  |  |
| Oral LDLo 2000 mg/kg (cat)   |   |                |  |  |
| Skin irritation or corrosion: Cause  | kin irritation or corrosion: Causes skin irritation.  |                |  |  |
| Eye irritation or corrosion: Cause   | Eye irritation or corrosion: Causes serious eye irritation.   |                |  |  |
| ensitization: No sensitizing effects known.  |   |                |  |  |
| Germ cell mutagenicity: No effect  | ts known.   |                |  |  |
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| Product name: 5,7-Dichloro-8-hydroxyquinoline   |   |
|---|---|
|   | (Contd. of page 3)  |
| Environmental hazards:  | Not applicable.   |
| Special precautions for user  | Not applicable.   |
| Transport in bulk according to Annex II of MARPOL73/78 a  |   |
| Transport/Additional information:   | Not dangerous according to the above specifications.  |
| DOT<br>Marine Ballutant (DOT)   |   |
| Marine Pollutant (DOT):   | No  |
| 15 Regulatory information   |   |
| Safety, health and environmental regulations/legislation s<br>GHS label elements The product is classified and labeled in a<br>Hazard pictograms  | specific for the substance or mixture<br>accordance with 29 CFR 1910 (OSHA HCS)   |
| GHS07   |   |
| P304+P340 IF INHALED: Remove person to fresh air a.   P405 Store locked up.   P501 Dispose of contents/container in accordance   National regulations All components of this product are listed in the U.S. Environmed   All components of this product are listed on the Canadian Non   SARA Section 313 (specific toxic chemical listings) Substa   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, male Substance is not listed information about limitation of use: For use only by technical | p/eyé protection/face protection.<br>for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>and keep comfortable for breathing.<br>nce with local/regional/national/international regulations.<br>mental Protection Agency Toxic Substances Control Act Chemical substance Inventory.<br>on-Domestic Substances List (NDSL).<br>stance is not listed.<br>a not listed.<br>t listed.<br>t listed.<br>t listed.<br>e REACH Regulations (EC) No. 1907/2006. Substance is not listed.<br>d Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the<br>station for use) Substance is not listed. |
| Employers should use this information only as a supplement to<br>information to ensure proper use and protect the health and sa   | to other information gathered by them, and should make independent judgement of suitability of this<br>safety of employees. This information is furnished without warranty, and any use of the product not in<br>bination with any other product or process, is the responsibility of the user.   |

IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

USA \_\_\_\_