



Revision Number: 003.2

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: C5-A® Copper Anti-Seize Stick
Product type: Lubricant

IDH number: 466863
Item number: 37229
Region: United States

Company address:
 Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067

Contact information:
 Telephone: 860.571.5100
 MEDICAL EMERGENCY Phone: Poison Control Center
 1-877-671-4608 (toll free) or 1-303-592-1711
 TRANSPORT EMERGENCY Phone: CHEMTREC
 1-800-424-9300 (toll free) or 1-703-527-3887
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: solid
Color: copper
Odor: mild, Petroleum

HMIS:

HEALTH: 1
FLAMMABILITY: 1
PHYSICAL HAZARD: 0
Personal Protection: See MSDS Section 8

CAUTION: MAY CAUSE EYE AND SKIN IRRITATION.

Relevant routes of exposure: Eyes, Skin

Potential Health Effects

Inhalation: Inhalation of copper fumes may result in metal fume fever. Symptoms include metallic taste, discoloration of skin or hair. This product has low volatility and is not expected to cause respiratory tract irritation during normal conditions of use. May cause respiratory tract irritation.

Skin contact: Prolonged or repeated contact may cause irritation.

Eye contact: Contact with eyes will cause irritation.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Principal hazard of ingestion is aspiration into the lungs and subsequent pneumonitis.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Hazardous components | CAS NUMBER | % |
|--|------------|---------|
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 30 - 60 |
| Copper | 7440-50-8 | 10 - 30 |
| Graphite | 7782-42-5 | 10 - 30 |
| Mineral oil light naphthenic hydrotreat. <3% DMSO | 64742-53-6 | 10 - 30 |
| Quartz (SiO ₂) | 14808-60-7 | 1 - 5 |

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If symptoms persist, seek medical advice.

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| Skin contact: | Wash with soap and water. If symptoms develop and persist, get medical attention. |
| Eye contact: | Get medical attention. Immediately flush eyes with plenty of water for at least 15 minutes. |
| Ingestion: | Get medical attention. Do not induce vomiting. Aspiration may cause pulmonary edema and pneumonitis. |

5. FIRE FIGHTING MEASURES

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|--|---|
| Flash point: | Product is a solid. Burn Rate: Approx 14 mm/2 minutes |
| Autoignition temperature: | Not determined |
| Flammable/Explosive limits - lower: | Not determined |
| Flammable/Explosive limits - upper: | Not determined |
| Extinguishing media: | Dry chemical. Carbon dioxide. foam |
| Special firefighting procedures: | None |
| Unusual fire or explosion hazards: | None |
| Hazardous combustion products: | Oxides of carbon. |

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

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| Environmental precautions: | No special environmental precautions required. |
| Clean-up methods: | Follow all local, state, federal and provincial regulations for disposal. Scrape up as much material as possible. Clean residue with soap and water. |

7. HANDLING AND STORAGE

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| Handling: | Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Keep container closed. |
| Storage: | Keep in a cool, well ventilated area. |

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

| Hazardous components | ACGIH TLV | OSHA PEL | AIHA WEEL | OTHER |
|--|---|---|-----------|-------|
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m3 TWA mist 10 mg/m3 STEL mist 5 mg/m3 TWA Inhalable fraction. | 5 mg/m3 TWA mist 500 ppm (2,000 mg/m3) TWA 5 mg/m3 TWA Mist. | None | None |
| Copper | 1 mg/m3 TWA (as Cu) Dust and mist. 0.2 mg/m3 TWA Fume. | 1 mg/m3 TWA (as Cu) Dust and mist. 0.1 mg/m3 TWA (as Cu) Fume. | None | None |
| Graphite | 2 mg/m3 TWA Respirable fraction. | 5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust. 15 MPPCF TWA | None | None |
| Mineral oil light naphthenic hydrotreat. <3% DMSO | 5 mg/m3 TWA Inhalable fraction. | 500 ppm (2,000 mg/m3) TWA 5 mg/m3 TWA Mist. | None | None |
| Quartz (SiO ₂) | 0.025 mg/m3 TWA Respirable fraction. | 2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.3 mg/m3 TWA Total dust. | None | None |

Engineering controls:

Use only with adequate ventilation. Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection:

Observe OSHA regulations for respiratory use (29 CFR 1910.134). Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Goggles. Safety glasses with side-shields.

Skin protection:

Cover as much of the exposed skin area as possible with appropriate clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|---|---|
| Physical state: | solid |
| Color: | copper |
| Odor: | mild, Petroleum |
| Odor threshold: | Not available. |
| pH: | Not applicable |
| Vapor pressure: | Not determined |
| Boiling point/range: | Not available. |
| Melting point/ range: | Not available. |
| Specific gravity: | 1.18 |
| Vapor density: | Not determined |
| Flash point: | Product is a solid. Burn Rate: Approx 14 mm/2 minutes |
| Flammable/Explosive limits - lower: | Not determined |
| Flammable/Explosive limits - upper: | Not determined |
| Autoignition temperature: | Not determined |
| Evaporation rate: | Not determined |
| Solubility in water: | Insoluble |
| Partition coefficient (n-octanol/water): | Not determined |
| VOC content: | 13 %; 153 g/l |

10. STABILITY AND REACTIVITY

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| Stability: | Stable at normal conditions. |
| Hazardous reactions: | Will not occur. |
| Hazardous decomposition products: | Oxides of carbon. |
| Incompatible materials: | Oxidizing agents. |
| Conditions to avoid: | None known |

11. TOXICOLOGICAL INFORMATION

| Hazardous components | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|--|-------------------------------|-----------------|---|
| Distillates (petroleum), hydrotreated heavy naphthenic | No | No | No |
| Copper | No | No | No |
| Graphite | No | No | No |
| Mineral oil light naphthenic hydrotreat. <3% DMSO | No | No | No |
| Quartz (SiO ₂) | Known To Be Human Carcinogen. | Group 1 | No |

| Hazardous components | Health Effects/Target Organs |
|--|--|
| Distillates (petroleum), hydrotreated heavy naphthenic | Irritant |
| Copper | Allergen, Blood, Central nervous system, Developmental, Gastrointestinal, Immune system, Irritant, Kidney, Liver, Mutagen, Sensory, Skin |
| Graphite | Lung |
| Mineral oil light naphthenic hydrotreat. <3% DMSO | Irritant |
| Quartz (SiO ₂) | Immune system, Lung, Some evidence of carcinogenicity |

12. ECOLOGICAL INFORMATION

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| Ecological information: | No specific studies have been conducted by Henkel on the ecotoxicity or environmental fate of this material; however, commonly available data on the material indicate that uncontrolled releases to soil, ground water, or surface waters could entail acute and/or chronic ecological effects, depending on the quantity and concentration of such releases. Releases of volatile components to the atmosphere are not believed to entail significant ecological consequences provided such releases are within the exposure levels set forth in this document. Accordingly, all appropriate measures should be taken to avoid uncontrolled releases to the environment, and any spills or other uncontrolled releases which may occur should be contained and cleaned up immediately in accordance with Section 6. |
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13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Copper)
Hazard class or division: 9
Identification number: UN 3077
Packing group: III
Marine pollutant: Copper
DOT Reportable quantity: Copper

International Air Transportation (ICAO/IATA)

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Copper)
Hazard class or division: 9
Identification number: UN 3077
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper)
Hazard class or division: 9
Identification number: UN 3077
Packing group: III
Marine pollutant: Copper

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12(b) Export Notification: None above reporting de minimus
CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health
CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Copper (CAS# 7440-50-8).
California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
WHMIS hazard class: D.2.B, D.2.A

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: Corrected information in Section(s): 14

Prepared by: C.J. Michaels, Manager, Regulatory Affairs

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