



Revision Number: 003.2

Issue date: 11/17/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: C5-A® Copper Anti-Seize Stick
Product type: Lubricant
Company address: Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067

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

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

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 (SiO2)	14808-60-7	1 - 5

4. FIRST AID MEASURES

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

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

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.

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

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 (SiO2)	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

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

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

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/NDSL 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

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