



Revision Number: 002.5

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** BONDERITE S-FN M 254N AERO  
 FUNCTIONAL PREVENTATIVE  
 COATING ACHESON known as  
 MOLYDAG 254N

**IDH number:** 1224297

**Product type/use:** Dry film lubricant

**Restriction of Use:** None identified

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

**Region:** United States

**Contact information:**  
 Telephone: +1 (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**

**DANGER:** HIGHLY FLAMMABLE LIQUID AND VAPOR.  
 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.  
 CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE IRRITATION.  
 MAY CAUSE DROWSINESS OR DIZZINESS.  
 MAY CAUSE CANCER.  
 MAY DAMAGE FERTILITY OR THE UNBORN CHILD.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1
CARCINOGENICITY	1B
REPRODUCTIVE TOXICITY	1B
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
ASPIRATION HAZARD	1

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection.

**Response:** IF SWALLOWED: Immediately call a physician or poison control center. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. Do NOT induce vomiting. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

1 % of the mixture consists of ingredient(s) of unknown acute toxicity.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Toluene	108-88-3	20 - 30
Molybdenum disulphide	1317-33-5	10 - 20
Epoxy resin	Proprietary	10 - 20
antimony trioxide	1309-64-4	10 - 20
Methyl ethyl ketone	78-93-3	10 - 20
Methoxypropyl acetate 2-	108-65-6	10 - 20
Lead oxide phosphonate	12141-20-7	5 - 10
Formaldehyde, polymer with 3-chloro-1-propene and phenol	28470-78-2	1 - 5
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with hectorite	71011-27-3	1 - 5
Arsenic	7440-38-2	0 - 0.1

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

**Inhalation:** If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

**Skin contact:** Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention.

**Eye contact:** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

**Ingestion:** Get immediate medical attention. Do not induce vomiting.

**Symptoms:** See Section 11.

**Notes to physician:** Treat symptomatically and supportively.

## 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Water spray (fog), foam, dry chemical or carbon dioxide.

**Special firefighting procedures:** Wear full protective clothing. Wear self-contained breathing apparatus.

**Unusual fire or explosion hazards:** DANGEROUS when exposed to heat or flame. This material can be ignited by flame or spark under all normal atmospheric conditions. Vapors may travel considerable distance to source of ignition and flash back.

**Hazardous combustion products:** Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

## 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:** Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways. Remove all sources of ignition.

**Clean-up methods:** Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. Use non-sparking tools when opening or closing containers. Make sure containers are properly grounded before use or transfer of material. Do not take internally. For industrial use only.

**Storage:** Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

**For information on product shelf life, please review labels on container or check the Technical Data Sheet.**

## 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 Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Toluene	20 ppm TWA	200 ppm TWA 300 ppm Ceiling 500 ppm MAX. CONC 10 minutes	None	None
Molybdenum disulphide	10 mg/m3 TWA (as Mo) Inhalable fraction. 3 mg/m3 TWA (as Mo) Respirable fraction.	15 mg/m3 PEL (as Mo) Total dust.	None	None
Epoxy resin	None	None	None	None
antimony trioxide	0.5 mg/m3 TWA (as Sb) Included in the regulation but with no data values. See regulation for further details Exposure by all routes should be carefully controlled to levels as low as possible.	0.5 mg/m3 PEL (as Sb)	None	None
Methyl ethyl ketone	200 ppm TWA 300 ppm STEL	200 ppm (590 mg/m3) PEL	None	None
Methoxypropyl acetate 2-	None	None	50 ppm TWA	None
Lead oxide phosphonate	0.05 mg/m3 TWA (as Pb)	0.05 mg/m3 TWA 0.03 mg/m3 OSHA_ACT	None	None
Formaldehyde, polymer with 3-chloro-1-propene and phenol	None	None	None	None
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with hectorite	None	None	None	None
Arsenic	0.01 mg/m3 TWA (as As)	0.01 mg/m3 TWA 0.005 mg/m3 OSHA_ACT	None	None

**Engineering controls:**

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

**Respiratory protection:**

If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

**Eye/face protection:**

Wear chemical goggles; face shield (if splashing is possible).

**Skin protection:**

Wear impervious gloves for prolonged contact. Suitable glove materials may include: Neoprene gloves. Nitrile gloves. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Black
<b>Odor:</b>	Aromatic
<b>Odor threshold:</b>	2.140 ppm
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	91 mm hg
<b>Boiling point/range:</b>	> 79 °C (> 174.2 °F)
<b>Melting point/ range:</b>	-89 °C (-128.2 °F) calculated
<b>Specific gravity:</b>	1.34
<b>Vapor density:</b>	3.2
<b>Flash point:</b>	-4.4 °C (24.08 °F) Closed cup
<b>Flammable/Explosive limits - lower:</b>	1.2 %
<b>Flammable/Explosive limits - upper:</b>	11.5 %
<b>Autoignition temperature:</b>	> 272 °C (> 521.6 °F)
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not determined
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	616 g/l
<b>Viscosity:</b>	200 - 1,000 cp
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions. Electrostatic charge may build-up during handling. Grounding of equipment is recommended.
<b>Hazardous reactions:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Incompatible materials:</b>	Strong acids, alkalies and oxidizing agents.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Avoid excessive heat and ignition sources.

## 11. TOXICOLOGICAL INFORMATION

<b>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes
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### Potential Health Effects/Symptoms

<b>Inhalation:</b>	This product is irritating to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.
<b>Skin contact:</b>	This product is irritating to the skin. A component in this product may be absorbed through the skin in harmful amounts.
<b>Eye contact:</b>	This product may be severely irritating to the eyes.
<b>Ingestion:</b>	Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Moderately toxic by ingestion. Small amounts of this product, if aspirated into the lungs, may cause mild to severe pulmonary injury.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Toluene	Oral LD50 (Rat) = 2.6 g/kg Dermal LD50 (Rabbit) = 12,124 mg/kg	Behavioral, Cardiac, Central nervous system, Developmental, Ear, Irritant
Molybdenum disulphide	None	No Target Organs
Epoxy resin	None	Irritant, Allergen
antimony trioxide	Oral LD50 (Rat) = > 34,600 mg/kg Oral LD50 (Rat) = > 20 g/kg	Cardiac, Developmental, Eyes, Gastrointestinal, Irritant, Kidney, Liver, Lung, Mutagen, Nervous System, Reproductive, Sensory, Some evidence of carcinogenicity
Methyl ethyl ketone	Oral LD50 (Mouse) = 670 mg/kg Oral LD50 (Rat) = 2,300 - 3,500 mg/kg Oral LD50 (Rat) = 4,500 - 6,800 mg/kg Dermal LD50 (Rabbit) = > 8,000 mg/kg	Irritant, Central nervous system
Methoxypropyl acetate 2-	None	Irritant, Central nervous system
Lead oxide phosphonate	None	No Records
Formaldehyde, polymer with 3-chloro-1-propene and phenol	None	No Records
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with hectorite	None	No Records
Arsenic	Oral LD50 (Rat) = 763 mg/kg Oral LD50 (Mouse) = 145 mg/kg	Blood, Carcinogen, Cardiac, Gastrointestinal, Irritant, Kidney, Nervous System, Skin, Vascular

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Toluene	No	No	No
Molybdenum disulphide	No	No	No
Epoxy resin	No	No	No
antimony trioxide	No	Group 2B	No
Methyl ethyl ketone	No	No	No
Methoxypropyl acetate 2-	No	No	No
Lead oxide phosphonate	Reasonably Anticipated to be a Human Carcinogen.	Group 2A	No
Formaldehyde, polymer with 3-chloro-1-propene and phenol	No	No	No
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with hectorite	No	No	No
Arsenic	Known To Be Human Carcinogen.	Group 1	Yes

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Toxic to aquatic organisms

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

**Hazardous waste number:** Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes. If discarded, this product is considered a RCRA ignitable waste, D001. This product may contain traces of: D008: Lead

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

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

**Proper shipping name:** Paint  
**Hazard class or division:** 3  
**Identification number:** UN 1263  
**Packing group:** II  
**DOT Hazardous Substance(s):** Arsenic, Toluene

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Paint  
**Hazard class or division:** 3  
**Identification number:** UN 1263  
**Packing group:** II

### Water Transportation (IMO/IMDG)

**Proper shipping name:** PAINT (Lead phosphite dibasic)  
**Hazard class or division:** 3  
**Identification number:** UN 1263  
**Packing group:** II  
**Marine pollutant:** Lead phosphite dibasic

## 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 minimis

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health, Fire  
**CERCLA/SARA Section 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). Toluene (CAS# 108-88-3). antimony trioxide (CAS# 1309-64-4). Methyl ethyl ketone (CAS# 78-93-3). Lead oxide phosphonate (CAS# 12141-20-7).

**CERCLA Reportable quantity:** Toluene (CAS# 108-88-3) 1,000 lbs. (454 kg)  
antimony trioxide (CAS# 1309-64-4) 1,000 lbs. (454 kg)  
Methyl ethyl ketone (CAS# 78-93-3) 5,000 lbs. (2,270 kg)  
Arsenic (CAS# 7440-38-2) 1 lbs. (0.454 kg)  
Lead oxide phosphonate (CAS# 12141-20-7) 10 lbs. (4.54 kg)

**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

## Canada Regulatory Information

**CEPA DSL/NDSL Status:** Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

## 16. OTHER INFORMATION

**This safety data sheet contains changes from the previous version in sections:** This Safety Data Sheet contains changes from the previous version in Section(s): 2, 3

**Prepared by:** Regulatory Affairs

**Issue date:** 10/31/2019

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