



Revision Number: 003.0

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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:	1224299
Product type/use:	Dry film lubricant	Item number:	1224299
Restriction of Use:	None identified	Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: +1 (860) 571-5100		
One Henkel Way	MEDICAL EMERGENCY Phone: Poison Control Center		
Rocky Hill, Connecticut 06067	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 VAPOUR.
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.

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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
2-methoxy-1-methylethyl acetate	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/m ³ TWA (as Mo) Inhalable fraction. 3 mg/m ³ TWA (as Mo) Respirable fraction. 0.5 mg/m ³ TWA (as Mo) Respirable fraction.	15 mg/m ³ PEL (as Mo) Total dust. 5 mg/m ³ PEL (as Mo)	None	None
Epoxy resin	None	None	None	None
antimony trioxide	0.02 mg/m ³ TWA Inhalable fraction.	0.5 mg/m ³ PEL (as Sb)	None	None
Methyl ethyl ketone	200 ppm TWA 300 ppm STEL	200 ppm (590 mg/m ³) PEL	None	None
2-methoxy-1-methylethyl acetate	None	None	50 ppm TWA	None
Lead oxide phosphonate	0.05 mg/m ³ TWA (as Pb)	0.05 mg/m ³ TWA 0.03 mg/m ³ 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/m ³ TWA (as As)	0.01 mg/m ³ TWA 0.005 mg/m ³ 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

Physical state:	Liquid
Color:	Black
Odor:	Aromatic
Odor threshold:	2.140 ppm
pH:	6 - 8
Vapor pressure:	< 63 hPa (20 °C (68°F)) < 250 hPa (50 °C (122°F))
Boiling point/range:	> 80 °C (> 176°F)
Melting point/ range:	Not applicable, Product is a liquid
Specific gravity:	1.34
Vapor density:	> 1 20 °C
Flash point:	-4 °C (24.8 °F)
Flammable/Explosive limits - lower:	1.2 % (Air) 1.2 %
Flammable/Explosive limits - upper:	11.5 % (Air) 11.5 %
Autoignition temperature:	> 272 °C (> 521.6 °F)
Flammability:	Flammable liquid
Evaporation rate:	Not determined
Solubility in water:	Partially miscible
Partition coefficient (n-octanol/water):	Not available.
VOC content:	616 g/l
Viscosity:	200 - 1,000 cp
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes
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Potential Health Effects/Symptoms

Inhalation:	This product is irritating to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.
Skin contact:	This product is irritating to the skin. A component in this product may be absorbed through the skin in harmful amounts.
Eye contact:	This product may be severely irritating to the eyes.
Ingestion:	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 Inhalation LC50 (Rat, 4 h) = 12.5 - 28.8 mg/l Inhalation LC50 (Rat, 4 h) = 25.7 mg/l Inhalation LC50 (Rat, 4 h) = 28.1 mg/l Inhalation LC50 (Rat, 4 h) = 30 mg/l	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 Inhalation LC50 (Rat, 4 h) = > 5.2 mg/l	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
2-methoxy-1-methylethyl acetate	None	Irritant, Central nervous system
Lead oxide phosphonate	Inhalation LC50 (Rat, 4 h) = > 5.05 mg/l	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	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	No
Methyl ethyl ketone	No	No	No
2-methoxy-1-methylethyl acetate	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 Do not empty into drains / surface water / ground water / soil.
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13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

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

14. TRANSPORT INFORMATION

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

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 as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: Phenol (CAS# 108-95-2). Formaldehyde (CAS# 50-00-0). Diarsenic trioxide (CAS# 1327-53-3).

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). Lead monoxide (CAS# 1317-36-8).

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

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: New Safety Data Sheet format.

Prepared by: Regulatory Affairs

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