



Revision Number: 003.1

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** BONDERITE S-FN GP 1904 DRYFILM LUBRICANT ACHESON known as GP 1904  
**IDH number:** 1263128  
**Product type/use:** Dry film lubricant  
**Restriction of Use:** None identified  
**Region:** United States  
**Company address:** Henkel Corporation, One Henkel Way, Rocky Hill, Connecticut 06067  
**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 ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.  
 MAY CAUSE DROWSINESS OR DIZZINESS.  
 SUSPECTED OF CAUSING GENETIC DEFECTS.  
 MAY CAUSE CANCER.  
 SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.  
 CAUSES DAMAGE TO ORGANS.  
 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
SKIN IRRITATION	2
EYE IRRITATION	2A
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	2
CARCINOGENICITY	1A
REPRODUCTIVE TOXICITY	2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2
ASPIRATION HAZARD	1

**PICTOGRAM(S)**



### Precautionary Statements

<b>Prevention:</b>	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. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. 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. In case of inadequate ventilation wear respiratory protection.
<b>Response:</b>	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: Call a poison center or physician. 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.
<b>Storage:</b>	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal:</b>	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

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*
n-Butyl alcohol	71-36-3	10 - 30
Ethanol	64-17-5	10 - 30
Toluene	108-88-3	10 - 30
Methoxypropyl acetate 2-	108-65-6	10 - 30
n-Butyl acetate	123-86-4	1 - 5
Pentylacetat	628-63-7	1 - 5
Phenol	108-95-2	1 - 5
Xylenes	1330-20-7	1 - 5
Propyl acetate	109-60-4	1 - 5
Methanol	67-56-1	1 - 5
Ethylbenzene	100-41-4	0.1 - 1
Graphite	7782-42-5	0.1 - 1
Carbon black	1333-86-4	0.1 - 1
Formaldehyde	50-00-0	0.1 - 1
Methyl isobutyl ketone	108-10-1	0.1 - 1

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

## 4. FIRST AID MEASURES

<b>Inhalation:</b>	If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.
<b>Skin contact:</b>	Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
<b>Ingestion:</b>	Get immediate medical attention. DO NOT induce vomiting unless directed to do so by medical personnel.
<b>Symptoms:</b>	See Section 11.
<b>Notes to physician:</b>	Treat symptomatically and supportively.

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear full protective clothing. Wear self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	DANGEROUS when exposed to heat or flame. This material can be ignited by flame or spark under all normal atmospheric conditions. Vapors are heavier than air and may travel to ignition sources and flash back.
<b>Hazardous combustion products:</b>	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.

<b>Environmental precautions:</b>	Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Eliminate ignition sources including sources of electrical, static or frictional sparks. Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	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

<b>Handling:</b>	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. Wash thoroughly after handling. Do not take internally. Keep away from heat, spark and flame. Ground and bond all equipment as required (when transferring products). Use non-sparking tools when opening or closing containers.
<b>Storage:</b>	For safe storage, store between 5.0 °C (41°F) and 30.0 °C (86°F) Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers.

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
n-Butyl alcohol	20 ppm TWA	100 ppm (300 mg/m3) PEL	None	None
Ethanol	1,000 ppm STEL	1,000 ppm (1,900 mg/m3) PEL	None	None
Toluene	20 ppm TWA	200 ppm TWA 300 ppm Ceiling 500 ppm MAX. CONC 10 minutes	None	None
Methoxypropyl acetate 2-	None	None	50 ppm TWA	None
n-Butyl acetate	50 ppm TWA 150 ppm STEL	150 ppm (710 mg/m3) PEL	None	None
Pentylacetat	50 ppm TWA 100 ppm STEL	100 ppm (525 mg/m3) PEL	None	None
Phenol	5 ppm TWA (SKIN)	5 ppm (19 mg/m3) PEL (SKIN)	None	None
Xylenes	100 ppm TWA 150 ppm STEL	100 ppm (435 mg/m3) PEL	None	None
Propyl acetate	100 ppm TWA 150 ppm STEL	200 ppm (840 mg/m3) PEL	None	None
Methanol	200 ppm TWA (SKIN) 250 ppm STEL	200 ppm (260 mg/m3) PEL	None	None
Ethylbenzene	20 ppm TWA	100 ppm (435 mg/m3) PEL	None	None
Graphite	2 mg/m3 TWA Respirable fraction.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
Carbon black	3 mg/m3 TWA Inhalable fraction.	3.5 mg/m3 PEL	None	None
Formaldehyde	0.3 ppm STEL 0.1 ppm TWA (Respiratory sensitization) (Dermal sensitization)	0.5 ppm OSHA_ACT 0.75 ppm TWA 2 ppm STEL	None	None
Methyl isobutyl ketone	20 ppm TWA 75 ppm STEL	100 ppm (410 mg/m3) PEL	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 safety glasses; chemical goggles (if splashing is possible).

**Skin protection:**

Wear impervious gloves for prolonged contact. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**

Liquid

**Color:**

Black

**Odor:**

Solvent

**Odor threshold:**

Not available.

<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	19 mm hg
<b>Boiling point/range:</b>	> 35 °C (> 95°F)
<b>Melting point/ range:</b>	Not determined
<b>Specific gravity:</b>	0.959
<b>Vapor density:</b>	1.0
<b>Flash point:</b>	7.78 °C (46°F) Closed cup
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not determined
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable
<b>Solubility in water:</b>	Negligible
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	720 g/l
<b>Viscosity:</b>	>= 100 cp
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Incompatible materials:</b>	This product may react with strong acids or oxidizing agents.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Heat, flames, sparks and other sources of ignition.

## 11. TOXICOLOGICAL INFORMATION

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

**Inhalation:** This product is irritating to the respiratory system. Breathing high concentrations of vapor may cause anesthetic effects. May cause dizziness, incoordination, headache, nausea, and vomiting.

**Skin contact:** This product is irritating to the skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin. A component in this product may be absorbed through the skin in harmful amounts.

**Eye contact:** This product is irritating to the eyes. Symptoms include itching, burning, redness and tearing.

**Ingestion:** Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause dizziness, incoordination, headache, nausea, and vomiting.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
n-Butyl alcohol	Oral LD50 (Rat) = 790 mg/kg Dermal LD50 (Rabbit) = 3,400 mg/kg	Allergen, Central nervous system, Ear, Eyes, Irritant
Ethanol	Oral LD50 (Rat) = 9.9 g/kg Oral LD50 (Rat) = 6.2 g/kg Oral LD50 (Rat) = 17.8 g/kg Oral LD50 (Rat) = 11.5 g/kg Oral LD50 (Mouse) = 3,450 mg/kg Oral LD50 (Rat) = 10.6 g/kg Oral LD50 (Rat) = 7,060 mg/kg	Central nervous system, Irritant
Toluene	Oral LD50 (Rat) = 2.6 g/kg Dermal LD50 (Rabbit) = 12,124 mg/kg	Behavioral, Cardiac, Central nervous system, Developmental, Ear, Irritant
Methoxypropyl acetate 2-	None	Irritant, Central nervous system
n-Butyl acetate	Oral LD50 (Rat) = 14,000 mg/kg Oral LD50 (Rat) = 14,130 mg/kg	Irritant, Central nervous system
Pentylacetat	None	Irritant, Central nervous system
Phenol	Oral LD50 (Mouse) = 270 mg/kg Oral LD50 (Rat) = 317 mg/kg Oral LD50 (Rat) = 530 mg/kg Dermal LD50 (Rat) = 669 mg/kg Dermal LD50 (Rabbit) = 850 mg/kg	Blood, Cardiac, Corrosive, Developmental, Eyes, Irritant, Kidney, Liver, Mutagen, Nervous System, Skin, Vascular
Xylenes	Oral LD50 (Rat) = 6,670 mg/kg Oral LD50 (Rat) = 3,523 - 8,600 mg/kg Oral LD50 (Rat) = 4,300 mg/kg Dermal LD50 (Rabbit) = > 43 g/kg	Cardiac, Central nervous system, Irritant, Kidney, Liver
Propyl acetate	Oral LD50 (Mouse) = 8,300 mg/kg Oral LD50 (Rabbit) = 6.64 g/kg Oral LD50 (Rat) = 9,370 mg/kg	Central nervous system, Irritant
Methanol	Oral LD50 (Rat) = 5,628 mg/kg Oral LD50 (Mouse) = 7,300 mg/kg Oral LD50 (Rabbit) = 14.4 g/kg Dermal LD50 (Rabbit) = 15,800 mg/kg	Eyes, Irritant, Metabolic, Nervous System
Ethylbenzene	Oral LD50 (Rat) = 5.46 g/kg Oral LD50 (Rat) = 3,500 mg/kg Dermal LD50 (Rabbit) = 17,800 mg/kg	Irritant, Central nervous system
Graphite	Inhalation LC50 (Rat, 4 h) = > 2,000 mg/m3 Inhalation LC50 (Rat, 4 h) = > 2,000 mg/m3	Lung
Carbon black	Oral LD50 (Rat) = > 8,000 mg/kg	Respiratory, Some evidence of carcinogenicity
Formaldehyde	Oral LD50 (Rat) = 100 mg/kg Oral LD50 (Mouse) = 42 mg/kg Oral LD50 (Rat) = 2,020 mg/kg Oral LD50 (Rat) = 800 mg/kg	Allergen, Behavioral, Central nervous system, Irritant, Liver, Metabolic, Mutagen, Reproductive, Respiratory, Some evidence of carcinogenicity
Methyl isobutyl ketone	Oral LD50 (Rat) = 2,080 mg/kg Dermal LD50 (Rabbit) = > 16,000 mg/kg	Irritant, Central nervous system

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
n-Butyl alcohol	No	No	No
Ethanol	No	No	No
Toluene	No	No	No

Methoxypropyl acetate 2-	No	No	No
n-Butyl acetate	No	No	No
Pentylacetat	No	No	No
Phenol	No	No	No
Xylenes	No	No	No
Propyl acetate	No	No	No
Methanol	No	No	No
Ethylbenzene	No	Group 2B	No
Graphite	No	No	No
Carbon black	Known To Be Human Carcinogen.	Group 2B	No
Formaldehyde	Known To Be Human Carcinogen.	Group 1	Yes
Methyl isobutyl ketone	No	Group 2B	No

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

## 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:** If discarded, this product is considered a RCRA ignitable waste, D001.

## 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:** Coating solution  
**Hazard class or division:** 3  
**Identification number:** UN 1139  
**Packing group:** II  
**DOT Hazardous Substance(s):** Xylene (mixed), Toluene

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Coating solution  
**Hazard class or division:** 3  
**Identification number:** UN 1139  
**Packing group:** II

### Water Transportation (IMO/IMDG)

**Proper shipping name:** COATING SOLUTION  
**Hazard class or division:** 3  
**Identification number:** UN 1139  
**Packing group:** II

## 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:** Phenol (CAS# 108-95-2).  
**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). n-Butyl alcohol (CAS# 71-36-3). Toluene (CAS# 108-88-3). Phenol (CAS# 108-95-2). Xylenes (CAS# 1330-20-7). Methanol (CAS# 67-56-1). Ethylbenzene (CAS# 100-41-4). Formaldehyde (CAS# 50-00-0). Methyl isobutyl ketone (CAS# 108-10-1).

**CERCLA Reportable quantity:** n-Butyl alcohol (CAS# 71-36-3) 5,000 lbs. (2,270 kg)  
Ethanol (CAS# 64-17-5) 100 lbs. (45.4 kg)  
Toluene (CAS# 108-88-3) 1,000 lbs. (454 kg)  
Phenol (CAS# 108-95-2) 1,000 lbs. (454 kg)  
Xylenes (CAS# 1330-20-7) 100 lbs. (45.4 kg)  
Propyl acetate (CAS# 109-60-4) 100 lbs. (45.4 kg)  
Cellulose nitrate (CAS# 9004-70-0) 100 lbs. (45.4 kg)  
2-Propanol (CAS# 67-63-0) 100 lbs. (45.4 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:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 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, 15

**Prepared by:** Product Safety and Regulatory Affairs

**Issue date:** 06/28/2019

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