

THERM-A-GAP™ GEL 120

SDS No: PHC-508

SDS Preparation Date (mm/dd/yyyy): 05/24/2023

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SECTION 1. IDENTIFICATION

Product identifier used on the label

: **THERM-A-GAP™ GEL 120**

Other means of identification : GEL 120

Recommended use of the chemical and restrictions on use

: Fully cured, dispensible gel.
Restricted to professional users.

Chemical family

: Mixture of: Metal oxides;Silicone gel

SDS number

: PHC-508

**Name, address, and telephone number
of the supplier:**

Parker Hannifin Corp.

Chomerics Division
77 Dragon Court
Woburn, MA, USA
01888

Supplier's Telephone #

: (781) 935 4850

24 Hr. Emergency Tel #

: INFOTRAC - (800) 535-5053 (Within Continental US); (352) 323-3500 (Outside US)

**Name, address, and telephone number of
the manufacturer:**

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

gray - gel . Little or no odour.

Most important hazards:

Occupational exposure to the substance or mixture may cause adverse effects. For further information, please refer to section 11 of the SDS.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. See Section 12 for more environmental information.

This material is not classified as hazardous under U.S. OSHA regulations (29 CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Label elements

Hazard pictogram(s)

None required under U.S. OSHA Hazcom 2012 and Canadian WHMIS 2015 regulations.

Signal Word

None required under OSHA HazCom2012 and 2015 Canadian WHMIS regulations.

Hazard statement(s)

None required under OSHA HazCom2012 and 2015 Canadian WHMIS regulations.

Precautionary statement(s)

None required under OSHA HazCom2012 and 2015 Canadian WHMIS regulations.

Other hazards

Other hazards which do not result in classification:

Burning produces obnoxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Aluminum nitride	AlN	24304-00-5	30.0 - 60.0
Aluminum oxide	Aluminum trioxide Alumina	1344-28-1	30.0 - 60.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt, seek medical advice.
- Inhalation* : Move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing stops, provide artificial respiration. When symptoms persist or in all cases of doubt, seek medical advice.
- Skin contact* : For skin contact, wash with soap and water while removing contaminated clothing. When symptoms persist or in all cases of doubt, seek medical advice. Wash contaminated clothing before reuse.
- Eye contact* : Immediately flush eye(s) with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. When symptoms persist or in all cases of doubt, seek medical advice.

Most important symptoms and effects, both acute and delayed

- : Inhalation of fumes may result in metal fume fever, a flu-like illness. Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

- : Provide general supportive measures and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Unsuitable extinguishing media

- : None known.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Not considered flammable. However, may burn if exposed to extreme heat and flame. The pressure in sealed containers can increase under the influence of heat. Burning produces obnoxious and toxic fumes.

Flammability classification (OSHA 29 CFR 1910.106)

- : Not flammable.

Hazardous combustion products

- : Ammonia Carbon oxides. Silicon oxides. Nitrogen oxides. Metal oxides .

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

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Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not get water inside containers. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Wear appropriate protective equipment.

Environmental precautions : Prevent product from entering drains, sewers, waterways and soil.

Methods and material for containment and cleaning up

- : Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Scrape up product and place it into a container for disposal. Use inert, non-combustible absorbents to assist the pick up of material. Keep in properly labelled containers. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities.

Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the National Response Center in the United States (phone: 1-800-424-8802). US CERCLA Reportable quantity (RQ): See section 15.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Provide adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing vapors, fumes or dust. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and direct flame. Keep away from incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling.

Conditions for safe storage : Store in cool/well-ventilated place. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store away from incompatible materials (see Section 10 of the SDS).

Incompatible materials : Strong oxidizing agents; Hydrofluoric acid

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:				
Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Aluminum nitride	N/Av	N/Av	N/Av	N/Av
Aluminum oxide	1 mg/m ³ (respirable)	N/Av	15 mg/m ³ (total dust); 5 mg/m ³ (respirable)	N/Av

Exposure controls

Ventilation and engineering measures

- : Provide adequate ventilation. Apply technical measures to comply with the occupational exposure limits. Good ventilation (typically 10 air changes per hour) should be sufficient to control airborne levels. In case of insufficient ventilation wear suitable respiratory equipment.

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- Respiratory protection** : In case of insufficient ventilation wear suitable respiratory equipment. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. Seek advice from respiratory protection specialists.
- Skin protection** : Gloves impervious to the material are recommended. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Wear sufficient clothing to prevent skin contact.
- Eye / face protection** : Wear as appropriate: Tightly fitting safety goggles; Safety glasses with side shields.
- Other protective equipment** : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.
- General hygiene considerations** : Avoid breathing vapors, fumes or dust. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : gray -gel
- Odour** : Little or no odour.
- Odour threshold** : No information available.
- pH** : No information available.
- Melting Point/Freezing point** : No information available.
- Initial boiling point and boiling range** : No information available.
- Flash point** : >200°F
- Flashpoint (Method)** : No information available.
- Evaporation rate (BuAe = 1)** : No information available.
- Flammability (solid, gas)** : Not applicable.
- Lower flammable limit (% by vol.)** : No information available.
- Upper flammable limit (% by vol.)** : No information available.
- Oxidizing properties** : None.
- Explosive properties** : Not explosive
- Vapour pressure** : No information available.
- Vapour density** : No information available.
- Relative density / Specific gravity** : >1
- Solubility in water** : Insoluble.
- Other solubility(ies)** : No information available.
- Partition coefficient: n-octanol/water or Coefficient of water/oil distribution** : No information available.
- Auto-ignition temperature** : No information available.
- Decomposition temperature** : No information available.
- Viscosity** : No information available.
- Volatiles (% by weight)** : Negligible.
- Volatile organic Compounds (VOC's)** : 0 g/L
- Absolute pressure of container** : Not applicable.
- Flame projection length** : Not applicable.

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Other physical/chemical comments

: No additional information.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions

: Hazardous polymerization does not occur.

Conditions to avoid : Direct sources of heat. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials. Moisture. Water

Incompatible materials : Strong oxidizers. Hydrofluoric acid

Hazardous decomposition products

: None known.

Burning produces obnoxious and toxic fumes. In the event of fire the following can be released: Carbon oxides; Metal oxides; formaldehyde; Nitrogen oxides (NOx); Silicon oxides; Ammonia.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption
: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath. Inhalation of fumes may result in metal fume fever, a flu-like illness.

Sign and symptoms ingestion

: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Sign and symptoms skin

: Direct skin contact may cause slight or mild, transient irritation.

Sign and symptoms eyes

: Direct eye contact may cause slight redness.

Potential Chronic Health Effects

: None expected, when used as intended.

Mutagenicity : Not expected to be mutagenic.

Carcinogenicity : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity

: Contains no ingredient listed as toxic to reproduction.

Sensitization to material : Not expected to be a skin or respiratory sensitizer.

Specific target organ effects : According to the classification criteria of U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015), this product is not expected to cause target organ toxicity through single or repeated exposures.

Medical conditions aggravated by overexposure

: None known or reported by the manufacturer.

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Synergistic materials : None known or reported by the manufacturer.
Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	LC₅₀(4hr) <u>inh, rat</u>	LD₅₀	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Aluminum nitride	N/Av	3450 mg/kg	N/Av
Aluminum oxide	> 2.3 mg/L (dust) (no deaths)	> 2000 mg/kg (No mortality)	No information available.

Other important toxicological hazards
: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : Contains material that may be harmful in the environment.No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	CAS #	Toxicity to Fish		
		LC₅₀ / 96h	NOEC / 21 day	M Factor
Aluminum nitride	24304-00-5	0.57mg/L	N/Av	1
Aluminum oxide	1344-28-1	> 100 mg/L (Brown trout)	N/Av	None.

<u>Ingredients</u>	CAS #	Toxicity to Daphnia		
		EC₅₀ / 48h	NOEC / 21 day	M Factor
Aluminum nitride	24304-00-5	3.9 mg/L	N/Av	None.
Aluminum oxide	1344-28-1	> 100 mg/L (Daphnia magna)	N/Av	None.

<u>Ingredients</u>	CAS #	Toxicity to Algae		
		EC₅₀ / 96h or 72h	NOEC / 96h or 72h	M Factor
Aluminum nitride	24304-00-5	N/Av	N/Av	None.
Aluminum oxide	1344-28-1	> 100 mg/L/72hr (Green algae) (Read-across)	N/Av	None.

Persistence and degradability
: The product itself has not been tested.

Bioaccumulation potential : The product itself has not been tested. See the following data for ingredient information.

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<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Aluminum nitride (CAS 24304-00-5)	N/Av	N/Ap

Mobility in soil : The product itself has not been tested.

Other Adverse Environmental effects

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.





SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. This material and its container must be disposed of in a safe way.

Methods of Disposal : Dispose of in accordance with federal, state and local regulations.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. Under the RCRA, it is the responsibility of the waste generator to determine the proper waste identification and disposal method.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
ICAO/IATA	None.	Not regulated.	not regulated	none	
ICAO/IATA Additional information	None.				
IMDG	None.	Not regulated.	not regulated	none	
IMDG Additional information	None.				
49CFR/DOT	None.	Not regulated.	not regulated	none	
49CFR/DOT Additional information	None.				
TDG	None.	Not regulated.	not regulated	none	
TDG Additional information	None.				

Special precautions for user : Appropriate advice on safety must accompany the package. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

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Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See Section 12 for more environmental information.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Aluminum nitride	24304-00-5	Yes	N/Ap	N/Av	No	N/Ap
Aluminum oxide	1344-28-1	Yes	None.	None.	Yes	1%

SARA TITLE III: Sec. 311 and 312 SDS Requirements, 40 CFR 370 Hazard Classes: Not a hazard under normal conditions of use.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Aluminum nitride	24304-00-5	No	N/Ap	No	No	No	No	No	No
Aluminum oxide	1344-28-1	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Information:

All ingredients are present on the DSL.

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Aluminum nitride	24304-00-5	246-140-8	Present	Present	(1)-19	KE-01008	Present	Listed
Aluminum oxide	1344-28-1	215-691-6	Present	Present	(1)-23	KE-01012	Present	May be used as a single component chemical under an appropriate group standard.

SECTION 16. OTHER INFORMATION

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists

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AICS: Australian Inventory of Chemical Substances
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DOT: Department of Transportation
EC50: Effective Concentration 50%
ENCS: Existing and New Chemical Substances
EPA: Environmental Protection Agency
IARC: International Agency for Research on Cancer
IECSC: Inventory of Existing Chemical Substances
IMDG: International Maritime Dangerous Goods
IOC: Inventory of Chemicals
KECI: Korean Existing Chemicals Inventory
KECL: Korean Existing Chemicals List
LC: Lethal Concentration
LD: Lethal Dose
N/Ap: Not Applicable
N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices
- 2. ECHA - European Chemical Agency
- 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases
- 4. Safety Data Sheets from manufacturer.
- 5. US EPA Title III List of Lists
- 6. California Proposition 65 List
- 7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal

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Other special considerations for handling

- : Provide adequate information, instruction and training for operators.

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<p><u>Prepared for:</u> Parker Hannifin Corp. Chomerics Division 77 Dragon Court Woburn, MA, U.S.A. 01888 Telephone: (781) 935-4850</p>	 The logo for Parker Chomerics, featuring the word "Parker" in a stylized white font on a black background, followed by a vertical orange line and the word "Chomerics" in a black sans-serif font.
<p><u>Prepared by:</u> ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.): (888) 977-4834 (Canada) http://www.thecompliancescenter.com</p>	 The logo for ICC Compliance Center, featuring the letters "icc" in white inside a blue circle, followed by the words "ComplianceCenter" in a blue sans-serif font.

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