

---

**SECTION 1 – Product Identification**

This 'Safety Data Sheet' (SDS) covers the **AresKleen™ purification material (Option 4)** in **Gaskleen® Purifier assemblies** with part numbers including 'INP, SIP, FCP, SF6P AND GEH4P'. It should be used in conjunction with the general Pall Product Safety Information (PSDS) sheet, number PSDS2022/GIS-00001/2.2, for all Gaskleen Purifier assemblies employing AresKleen purification materials.

**1.1 Product Identifier**

Product name(s):	Gaskleen Purifier assemblies with part numbers containing 'INP, SIP, FCP, SF6P AND GEH4P' employing AresKleen purification material.
EC number:	Not applicable
CAS number:	Not applicable
Product codes:	Gaskleen Purifier assemblies with part numbers containing 'INP, SIP, FCP, SF6P AND GEH4P' (see Addendum 1 and 2 - see pages 17 and 18)
Product Description:	Not applicable – this purification material is only supplied by Pall Corporation as part of Gaskleen Purifier assemblies.
Product type:	Solid, mixture
Other means of identification:	None

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Products containing the above AresKleen purification material (Option 4) are intended for purification in the following industrial, DRY, gas applications, by trained, professional users. These products are not for consumer sale or use.

**Identified Uses:**

- 'INP' for Inert gases and vapours service
- 'SIP' for Flammable Gas Service
- 'FCP' for Fluorocarbon Gas Service
- 'SF6P' for Sulfur Hexafluoride Gas Service
- 'GEH4P' for Germane Gas Service

For use with other gases and vapours – please consult Pall

- Hydrocarbons
- Hydrides
- Halogenated Compounds

Please contact Pall Scientific and Laboratory Services for further information on compatible use with mixtures of the above substances.

**Do not use for:** The AresKleen purification material (Option 4) detailed above is NOT for use with liquids, or with the following gases:

- Reactive fluoride gases, such as F<sub>2</sub>, HF, and BF<sub>3</sub>

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.



PALL CORPORATION

## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) and its amendments

Date: April 25<sup>th</sup> 2023

Data Sheet Number: GIM-00758 rev 1.1

**Do not contact the purification material with Lewis acids, oxidizing agents, water, carbon dioxide, oxygen, halogenated hydrocarbons, and metal halides.**

For information on gaseous mixture use please contact Pall Scientific and laboratory Services.

For further information on Pall products, please visit Pall at <https://www.pall.com/en/about-pall.html>

### 1.3 Details of the supplier of the Safety Data Sheet

Supplier's details: Pall Corporation  
3643 State Route 281 (PO Box 2030)  
Cortland, NY 13045  
USA

E-mail of person responsible for this SDS: [EHSS@pall.com](mailto:EHSS@pall.com)

Tele: +1 (607) 753-6041 select option 5

Country of origin for Gaskleen Purifier assemblies: USA

### 1.4 Emergency telephone number

Emergency Support CHEMTREC Telephone number +1 800-424-9300  
Registration date: January 14<sup>th</sup>, 2021  
Registration number: CCN16658

Hours of Operation 24 hours/day, 7 days/week

Information limitations None

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.



**SECTION 2 - Hazards Identification**

**2.1 Classification of the substance or mixture**

Product definition: Solid, Mixture

**2.2 Label Elements**



GHS Signal word: **Danger**

Hazard statements: Water-reactive component. 1, H260  
Skin Corrosive. 1B H314  
Causes serious eye damage. 1, H318, EU H014

**Precautionary statements**

Do not breathe dust / gas / fumes/ vapours /spray  
Wash face, hands and exposed skin thought after handling  
Wear protective gloves, protective clothing, eye, and face protection  
Keep aware from possible contact with water because of violent potential reaction  
Store under inert gas. Protect from moisture.

**Prevention**

Wear protective gloves, protective clothing, eye, and face protection

**Response**

Eye Contact: Should dust, resulting from damage to the unit, contact the eye – Wash with water, continuing for 10 minutes. Remove contact lenses and raise eyelid first. Seek medical advice.  
Inhalation: Should dust, resulting from damage to the unit, be inhaled – remove casualty to fresh air. Seek medical advice if adverse symptoms are experienced  
Skin contact: If irritation is experienced, wash with soap and water. If irritation persists, burns or other symptoms are experienced, seek medical advice.  
Ingestion: rinse mouth with water and give plenty of water to drink. Do not induce vomiting and seek medical attention.

**Storage**

Store in packaging as supplied – see section 7.2 for details

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) and its amendments

Date: April 25<sup>th</sup> 2023

Data Sheet Number: GIM-00758 rev 1.1

### Disposal

Avoid release. Dispose of in sealed container in line with local regulations and legislation by a licensed disposal contractor.

Restrictions on the manufacture, placing on the market and use of dangerous substances, mixtures, and articles: Not Applicable

### Special packaging requirements

Child resistant fastenings: Not Applicable (product for industrial professional use only)

Tactile warning of danger: Not Applicable

### 2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

Other hazards that do not result in classification: None known

## SECTION 3 - Materials of Construction

**3.1** The Gaskleen Purifier assemblies listed in the Addendum 1 and 2 and are comprised of the following materials:

Gaskleen Purifier assembly (small size)	Ingredient Identifier	Percentage Composition of the Gaskleen Purifier Assembly	Regulation (EC) No. 1272/2008 [CLP]	Ingredient Type
Stainless-steel 316 welded hardware	EC# 266-048-1 CAS# 65997-19-5	80 – 100%	Not regulated	[6]
<b>AresKleen Option 4</b> (composition detailed below)		Up to 20%		
Argon gas (shipping material)	EC# 231-147-0 CAS# 7440-37-1	5 -15 psi	Asphyxiant	[6]

Gaskleen Purifier assembly (large size)	Ingredient Identifier	Percentage Composition of the Gaskleen Purifier Assembly	Regulation (EC) No. 1272/2008 [CLP]	Ingredient Type
Stainless-steel 316 welded hardware	EC# 266-048-1 CAS# 65997-19-5	70 – 100%	Not regulated	[6]
<b>AresKleen Option 4</b> (composition detailed below)		Up to 30%		
Argon gas (shipping material)	EC# 231-147-0 CAS# 7440-37-1	5 -15 psi	Asphyxiant	[6]

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) and its amendments

Date: April 25<sup>th</sup> 2023

Data Sheet Number: GIM-00758 rev 1.1

AresKleen Option 4 - 'INP, SIP, FCP, SF6P AND GEH4P' purification material	Ingredient Identifier	Percentage Composition of Purifier material component	Regulation (EC) No. 1272/2008 [CLP]	Ingredient Type
Sodium (purification material component)	EC# 232-132-9 CAS# 7440-23-5	Up to 5%	Water-react. 1, H260 Skin Corr. 1B, H314 Eye Dam. 1, H318 EUH014	[1]
Proprietary ingredient (purification material component)		95 -100%	Not regulated	[6]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

### Type

[1] Substance classified with a health or environmental hazard

[6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

There are no current SVHC substances known to be present in the finished articles above 0.1%.

## **SECTION 4 - First Aid Measures**

### **4.1 Description of First aid measures**

Always address any contaminants present on the AresKleen purification material as the result of use.

Please note that the purification material is a reactive solid material. Contact of the purification material with water and / or air will generate heat. Direct contact of the purifier material with skin or eyes will cause burns and / or severe irritation.

**Eye Contact:** Eye contact with the AresKleen purification material Option 4 is unlikely if used under recommended conditions.

Should dust, resulting from damage to the unit, contact the eye – Wash with water, continuing for 10 minutes. Remove contact lenses and raise eyelid first. Seek medical advice.

**Inhalation:** Inhalation of the AresKleen purification material Option 4 is unlikely if used under recommended conditions.

Should dust, resulting from damage to the unit, be inhaled – remove casualty to fresh air. Seek medical advice if adverse symptoms are experienced

This route of entry is unlikely due to the large particle size and resistance to attrition of the material. Inhalation would, however, cause severe irritation to mucous

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.



# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) and its amendments

Date: April 25<sup>th</sup> 2023

Data Sheet Number: GIM-00758 rev 1.1

membranes and the upper respiratory tract. Symptoms may include irritation of nose and throat as well as labored breathing. Inhalation may also cause lung oedema that is a medical emergency.

Skin Contact:

Skin contact is unlikely if used under recommended conditions.

Causes severe skin irritation. Contact may cause redness, pain, and/or caustic burns.

If irritation is experienced, wash with soap and water. If irritation persists, burns or other symptoms are experienced, seek medical advice.

Ingestion:

Ingestion is not considered a likely route of exposure for the AresKleen purification material Option 4 as supplied by Pall, if used as intended.

However, if ingestion occurs, rinse mouth with water and give plenty of water to drink. **Do not induce vomiting and seek medical attention.**

Although unlikely to occur, ingestion would cause severe irritation to the mouth, throat, and stomach and may cause vomiting, diarrhoea, and abdominal spasms.

Protection of first aiders:

No action shall be taken involving any personal risk or without suitable training.

## 4.2 Key symptoms and effects both acute and delayed

No known significant effects or critical hazards

## 4.3 Indication of immediate medical attention and special treatment needed

Over exposure to sodium compounds may cause drowsiness, weakness, anorexia, nausea, headache, vomiting, blurring of vision, tremors, spasm, inflammation and oedema of the larynx and bronchi, chemical pneumonitis, pulmonary oedema, coma, and death.

Notes to physician

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been inhaled or ingested.

Specific treatments

No specific treatments.

---

## SECTION 5 - Fire Fighting Measures

### DANGER!

AresKleen purification material (Option 4) is a reactive solid material. Contact of the material with water and/or air will generate heat and a flammable gas that can be ignited.

## 5.1 Extinguishing media

In the event of exposed purification material extinguishers rated for Class D fires should be used. Dry powder extinguishers are also acceptable.

In the event of exposed purification material water or carbon dioxide extinguishers should not be used as they may cause further reaction.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

**5.2 Specific Hazards**

In the event of exposed purification material there is a risk of explosion due to the formation of explosive vapours. Exposed purification material will react with water / water vapour to form hydrogen which can be ignited.

In the event of exposed purification material combustion, the following products may be generated: carbon monoxide, carbon dioxide, sodium oxide, water, sodium hydroxide, hydrogen and/or methane

**5.3 Advice to Fire Fighters**

Please note the assembly contains a reactive solid material. Contact of that material with water and/or air will generate heat. Contact of the material with skin or eyes will cause burns and/or severe irritation. AresKleen purification material (Option 4) is sold contained within a sealed assembly and no fire hazard is present under ordinary conditions. If the material is released from the assembly, it should be handled according to the guidelines set forth for bulk purification material containing sodium metal

**Hazardous thermal** Decomposition products may include the following materials.

**decomposition products:** Carbon Dioxide  
Carbon Monoxide  
Halogenated Compounds  
Metal oxide / Oxides

Combustion may generate carbon monoxide, carbon dioxide, sodium oxide, water, sodium hydroxide, hydrogen, and/or methane.

**Special protective actions** Please employ self-contained breathing apparatus (SCBA) with positive pressure.

**for fire-fighters:** that purification material with water and / or air will generate heat. Contact of the purifier material with skin or eyes will cause burns and / or severe irritation.

**Special protective equipment** Fire-fighters should wear appropriate protective equipment and self-contained

**for fire-fighters:** breathing apparatus (SCUBA) with a full face-piece operated in positive pressure mode.

---

**SECTION 6 - Accidental Release Measures**

---

Do not apply water.

Eliminate sources of ignition and other combustible materials. Wear protective clothing as indicated in Section 8. Place into clean, dry, metal containers. Use care in handling container as product and container may become sufficiently hot to burn the skin.

Place container in a well-ventilated area free of sources of ignition and other combustible materials and let stand until material is spent. Stir material occasionally to ensure complete reaction (hydrogen gas will be released and the sodium metal compounds will be converted to their hydroxides). Material is spent when no further increase in temperature occurs following stirring. Water solution of the spent material will be strongly alkaline.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

**WARNING!**

If the AresKleen purification material (Option 4) in an Gaskleen Purifier assembly is exposed to toxic gases or gases containing toxic elements, the material may contain these toxic materials or reaction products thereof. It may exhibit the characteristic of toxicity as defined in the hazardous waste regulations 40 CFR 261 Subpart C or D. Refer to applicable SDS for the specific toxic gas in use to determine appropriate containment and disposal requirements.

**6.1 Personal precautions, protective equipment, and emergency procedures****For non-emergency personnel:**

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk-through spilt material. Put on appropriate personal protective equipment.

Gloves are required in respect handling AresKleen purification material in the unused condition as supplied.

For used AresKleen purification material always address any contaminants present on the AresKleen purification material as the result of use.

**For emergency personnel:**

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions**

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

For unused Gaskleen purifier assemblies, place in designated waste container appropriate to the materials of construction listed in Section 3 and dispose of in accordance with local regulations via a licenced waste disposal contractor.

For used Gaskleen purifier assemblies, use appropriate PPE measures related to the product processed and the materials of construction detailed in Section 3 and dispose of in accordance with local regulations via a licenced waste disposal contractor.

**6.3 Spillage containment and cleaning up**

Serious harm from accidental release during handling of the undamaged, unused article is unlikely due to the form of the assembly and the quantity of hazardous material present.

However, Gaskleen assemblies contain reactive, solid, purification materials. Contact of the purification materials with water or atmosphere will generate heat.

Contact of the purification material with the skin will or eyes will cause severe irritation. Therefore, dust resulting from damage to the assembly is potentially water-reactive and must be disposed of as hazardous waste.

Dust resulting from damage to the assembly is potentially water reactive. Therefore, spilled material should be considered 'hazardous waste'.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.



Eliminate sources of ignition and other combustible materials. Wear protective clothing as indicated in section 8. Place in a dry container. Use care in handling the container as assembly and container may become sufficiently hot as to burn the skin. Place container in a well-ventilated area, free from sources of ignition and other combustible materials and let stand until material is spent.

Handling must also take into consideration any contaminants on the Gaskleen purifier assembly as the result of use and other materials of construction of the assembly – please see PSDS2022/GIS-00001/2.2. Use suitable equipment to collect the Gaskleen purifier assembly and place in a designated, labelled waste container.

**Small spill:** Move the Gaskleen purifier assembly from the spill area. Vacuum or sweep up any released purification material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor as hazardous waste.

Care should be taken to consider the nature of any contamination on the AresKleen purification material as the result of use and suitable PPE employed for handling waste.

**Large spill:** Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container.

Dispose of via a licensed waste disposal contractor.

Note: see Section 1 for emergency contact information and Section 13 for hazardous waste disposal.

Wear protective gloves and PPE when handling any potentially damaged units or spilt materials. Taking into consideration the materials of construction of the Gaskleen purifier assembly and any substances present as the result of use.

---

## **SECTION 7 – Handling and Storage**

---

Installation and use must be in line with Pall instructions for use Gaskleen purifier assemblies, only by professional, trained operators in Industrial applications.

- Do not expose purification material to the atmosphere.
- Store assemblies at ambient temperatures
- Do not puncture container.
- The purification material in the assembly will react with Lewis acids, oxidizing agents, water, carbon dioxide, oxygen, halogenated hydrocarbons, and metal halides. Avoid contact with these types of compounds except as per intended use as outlined in the product literature.

### **7.1 Handling**

Put on appropriate personal protective equipment for the working environment (See Section 8). Consult details of gaseous product being processed for specific advice. Avoid activities that can damage the Gaskleen purifier assemblies. Follow good hygiene practices. Eating, drinking, and smoking are generally prohibited in areas where the Gaskleen purifier assembly is handled, stored, or processed.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

Staff must follow standard work-place hygiene before eating, drinking or smoking after using this product. Wear gloves to prevent contamination of, and maintain cleanliness of, the unused Gaskleen purifier assemblies.

## 7.2 Storage

In the received condition, special protective equipment is not needed during handling packaged Gaskleen purifier assemblies. However, gloves are recommended.

These articles are supplied dry, without the presence of any preserving fluid.

Store in a cool, clean environment.

Handle with care to avoid damage or abrading.

### **Keep dry.**

Store at temperatures between 0°C and 40°C, in dry conditions. For conditions outside of these limits consult Pall for specific recommendations.

Do not expose to direct sunlight or other radiation or direct weather conditions.

Store in original shipping bag or boxing. Do not remove from packaging until point of use.

Ensure careful handling to avoid physical damage. Ensure shipping bag and seals are intact prior to use.

Pall recommends a visual inspection prior to use. Do not use if the product or packaging is damaged (please contact Pall for further advice).

Please also consult the Pall instructions for use information on the product prior to use.

---

## **SECTION 8 - Exposure Controls/Personal Protection**

---

**Installation and use must be in line with Pall instructions for use of these products, only by professional, trained operators.**

**Note:** Exposure to the purification material is not expected under normal conditions. The following precautions are applicable in the event of assembly rupture or other exposure to the purification material.

- Avoid eye or skin contact.
- Avoid inhalation of dust.
- Wash thoroughly after handling, and before eating, drinking, or smoking. Remove contaminated clothing promptly and wash thoroughly before reuse.

## 8.1 Control parameters

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

**Hand protection** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

## 8.2 Exposure controls

Ventilation requirements shall be in accordance with the installation location for the article as supplied in the new and unused condition.

**Airborne Exposure Limits:** have not been established for this material.

**Ventilation:** Ventilation is not required for use of Gaskleen purifier assemblies in as supplied (**Note:** refer to SDS of process gas for specific ventilation guidelines). An adequate ventilation system should be installed to keep dust concentrations below acceptable exposure limits in the event of a release of purification material. Discharge from ventilation system should comply with applicable air pollution control regulations.

**Eye / face protection:** Safety eyewear complying with an approved standard or other PPE should be used in accordance with the requirements of the installation location and must be used when required by Pall's instructions for Use of the assembly provided and /or a risk assessment indicates this is necessary to avoid exposure to the purification material or process gases.

If contact is possible, safety glasses with side-shields should be worn unless a risk assessment indicates a higher degree of protection is required.

### **Skin protection:**

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard or other PPE should be used in accordance with the requirements of the installation location and must be used when required by Pall's instructions for Use of the assembly provided and /or a risk assessment indicates this is necessary to avoid exposure to the purification material or process gases.

**Body protection:** Body PPE should be selected appropriate to the installation location and the tasks to be undertaken as reviewed by a specialist, before handling these products.

**Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected appropriate to the installation location and the tasks to be undertaken as reviewed by a specialist, before handling these products.

**Respiratory protection:** use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazard risks from the materials involved and requirements applicable to the installation location, plus safe working limits of the selected respirator.

**Hygiene Measures:** Good hygiene practice in line with local working environmental requirements and guidelines.

Hand protection: Disposable gloves are recommended.

### **Environmental Exposure Controls:**

After the Gaskleen purifier assembly has been used additional exposure controls care should be taken in line with the nature of the Areskleen purification material (Option 4) present, other material of construction of the Gaskleen purifier assembly, plus the nature of any contaminant on the Gaskleen purifier assembly as a result of its use.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

---

**SECTION 9 - Physical and Chemical Properties**

---

Appearance:	Purification material – Small round black beads inside body  If purification material is visible the assembly MUST be considered 'damaged' and appropriate action taken. Do not use.
Physical state:	Solid
Colour:	Black
Solubility:	Keep product dry. Insoluble; reacts with water to release flammable hydrogen gas.
Specific gravity:	0.62
Auto-ignition temperature:	Autoignition may occur if material is exposed to temperatures in excess of 400°C in the presence of oxygen.
Melting Point:	Not available - Will combust or decompose before melting.
Sensitive to shock:	Mechanical / thermal shock can result in damage to the Gaskleen purifier assemblies

---

**SECTION 10 – Stability and Reactivity**

---

Reactivity:	AresKleen purification material (Option 4) is stable under the Pall recommended conditions of use and storage. If the AresKleen purification material (Option 4) in an assembly is exposed to toxic or corrosive gases or gases containing toxic elements, the material may contain these toxic materials or reaction products thereof. It may exhibit the characteristic of toxicity as defined in the hazardous waste regulations 40 CFR 261 Subpart Cor D. Refer to applicable SDS for the specific toxic or corrosive gas in use to determine appropriate containment and disposal requirements.  <b>AresKleen purification material (Option 4) is unstable if exposed to air. Store assemblies at ambient temperatures in a clean, dry location. Reaction with moisture in air results in the release of flammable hydrogen gas and in a temperature rise that may, under certain conditions, ignite the proprietary, substrate component.</b>
Chemical Stability:	AresKleen purification material (Option 4) will react with strong oxidizing agents and air. Avoid contact with these types of compounds except as per intended use as outlined in the product literature Please see Pall instructions for use of use and storage or contact Pall Scientific and Laboratory Services for further advice.
Hazardous Polymerisation:	Not expected
Other hazardous reactions:	The purification material in the assembly is incompatible with Lewis Acids, oxidizing agents, water, carbon dioxide, oxygen, air, halogenated hydrocarbons, and metal hydrides.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

Conditions to Avoid: In the event of exposed purification material- avoid exposure to high concentrations of oxygen, water, and other incompatibilities.

Avoid contact with reactive fluoride gases.

Keep dry.

Use only as directed by Pall's Instructions for Use.

Incompatible Materials: Reactive fluoride gases. Water. Lewis Acids, oxidizing agents, water, carbon dioxide, oxygen, air, halogenated hydrocarbons, and metal hydrides.

Decomposition Products: Under recommended conditions of use or storage, hazardous decomposition products should not be produced

---

## **SECTION 11 - Toxicological Information**

---

The information in this section contains generic advice and guidance in respect of the unused AresKleen purification material (Option 4) as supplied. Consult SDS details of the purification material together with those of the product being processed for specific advice and recommendations.

### **11.1 Acute Toxicity**

Based on typical information for the material type named, this information has not been determined specifically for Gaskleen purifier assemblies:

Irritation/Corrosion/Sensitisation: No specific test data available

Mutagenicity / Carcinogenicity /Reproductive Toxicity / Teratogenicity: No specific test data available

Aspiration Hazard: No specific test data available

Potential acute health effects: No specific test data available

### **11.2 Chronic health effects**

No known significant effects or critical hazards for the unused AresKleen purification material (Option 4) as supplied.

Carcinogenicity: No specific test data available, no evidence for hazardous properties

---

## **SECTION 12 - Ecological Information**

---

**Do not put to landfill.**

<b>Product/ingredient name</b>	<b>Result</b>	<b>Species Exposure</b>
Sodium 48 hours	Acute EC50 1640000 µg/L	Fresh water Daphnia - Daphnia magna

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

---

**SECTION 13 - Disposal Information**

---

The information in this section contains generic advice and guidance.

**WARNING!**

If AresKleen Purification Material Option 4 is exposed to toxic gases or gases containing toxic elements, the material may contain these toxic materials or reaction products thereof. It may exhibit the characteristic of toxicity - refer to applicable MSDS for the specific toxic gas in use to determine appropriate containment and disposal requirements.

**Disposal methods:** The generation of waste should be avoided or minimized wherever possible. Disposal of this product after use should comply with the requirements of environmental protection and waste disposal legislation, and any regional / local authority requirements.

Disposal of surplus or unused, damaged items should be undertaken by a licensed waste disposal contractor. After risk assessment of the materials of construction present – see Section 3.

Any waste or spilled material related to AresKleen purification material should not be disposed of to a sewer, waterway, drain or water course.

**Product**

Methods of disposal:

Disposal/handling of the un-used AresKleen purification material should be in-line with national legislation and local regulatory requirements for the materials present – see Section 3.

Please note that due to the presence of the purification material this product may be considered 'hazardous waste' under local legislation.

**Hazardous Waste:**

Used AresKleen purification material should be disposed of in-line with the nature of the contaminants on the Gaskleen assembly as a result of use as well as it's materials of construction. Therefore, used AresKleen purification material may be classified as hazardous waste.

**Packaging**

Please see PSDS2022/GIS-00001/2.2 for information on Gaskleen purifier assembly packaging materials.

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled where suitable arrangements and facilities exist.

Incineration or landfill should only be considered where re-cycling is not feasible.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.



SAFETY DATA SHEET




According to Regulation (EC) No. 1907/2006 (REACH) and its amendments

Date: April 25<sup>th</sup> 2023

Data Sheet Number: GIM-00758 rev 1.1

SECTION 14 - Transport Information

In respect of the AresKleen purification material (Option 4) alone –

	DOT Classification	IMDG	IATA
<b>UN number</b>	UN3190	UN3190	UN3190
<b>UN proper shipping name</b>	SELF-HEATING SOLID, INORGANIC, N. O.S. (Sodium)	SELF-HEATING SOLID, INORGANIC, N. O.S. (Sodium)	SELF-HEATING SOLID, INORGANIC, N. O.S. (Sodium)
<b>Transport hazard class(es)</b>	4.2 	4.2 	4.2 
<b>Packing group</b>	II	II	II
<b>Environmental hazards</b>	No.	No.	No.
<b>Additional information</b>	<u>Reportable quantity</u> 1111.1 lbs / 504.44 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	-	-

AERG : 135

**Shipping Description:** Self-heating solid, inorganic, n.o.s. (sodium)

**Packing Group:** II

**Hazard Class:** 4.2, Self-Heating Material

**Placard:** UN 3190

**Quantity Limitations:** Passenger Aircraft/Rail: 15 kg  
Cargo Aircraft: 50 kg

**Small Quantity Exemptions:** no

Transport within Users premises: Always transport within sealed packaging as supplied. Keep dry. Ensure those transporting or handling the packaged items have been trained on actions in the event of accident, product damage or spillage.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.



## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) and its amendments

Date: April 25<sup>th</sup> 2023

Data Sheet Number: GIM-00758 rev 1.1

---

### **SECTION 15 – Regulatory Information**

U.S. Federal regulations: TSCA 8(a) CDR Exempt/ partial exemption – Not determined

---

**Clean Air Act:** None of the components are considered US hazardous air pollutants or Class 1 or 2 ozone depleters.

---

Date of Original: February 15<sup>th</sup>, 2014

Date of issue: November 9<sup>th</sup>, 2022

Version: 1.1 (EU REACH format)

Use in conjunction with Pall Gaskleen Purifier Assembly PSDS document GIS-00002 rev 2.2

#### **Notice to Reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above Pall Corporation, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any materials is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

'Gaskleen' and 'AresKleen' are trademarks of the Pall Corporation

® indicates a trademark registered in the USA

© Pall Corporation, 2022.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.





PALL CORPORATION

## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) and its amendments

Date: April 25<sup>th</sup> 2023

Data Sheet Number: GIM-00758 rev 1.1

**Addendum 1** – Applicable **Gaskleen Purifier Assemblies** employing **AresKleen purification material (Option 4)** – **'small size'**

GLP110INPVFM8  
GLP110SIPVFM8  
GLP24INPFVMM4  
GLP24INPFVMM8  
GLP24INPFVMM8MAN  
GLP24INPVMM8  
GLP24SIPVMM8  
GLP24SIPVMM8  
GLP2GEH4PVMM4  
GLP2INPVMM4  
GLP2SF6PVMM4  
GLP2SIPVMM4  
GLP5INPVMM4  
GLP5SIPVMM4  
GLP6INPVMM4  
GLP6SIPVMM4  
GLP8INPVMM4  
GLP8SIPVMM4  
GLP9INPFVMM4  
GLP9INPVMM4  
GLP9SF6PFVMM4  
GLP9SIPVMM4  
GLP9SIPVMM4  
GLPGEH4PVMM4  
GLPINPVMM4  
GLPSIPVMM4  
GLPV2INVMM4  
GTMP3INPCC4  
GTMP3SIPCC4  
GLP24FCPFVMM8  
GLP2FCPVMM4  
GLP8FCPVMM4  
GLP9FCPFVMM4  
GLP9FCPVMM4  
GLPFCPVMM4

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.



PALL CORPORATION

## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) and its amendments

Date: April 25<sup>th</sup> 2023

Data Sheet Number: GIM-00758 rev 1.1

**Addendum 2** – Applicable **Gaskleen Purifier Assemblies** employing **AresKleen purification material (Option 4)** –  
**'large size'**

P2248036

**End of Safety Data Sheet**

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.  
Page 18 of 18