CURTISS-WRIGHT

Middleburg Hts., OH

Safety Data Sheet

Section 1 – Identification of the Substance/Preparation, and of the Company

Product Identifier: AP Style # 449		[WHMIS Classification] N/A	
Product Use: Gasketing			
Manufacturer's Name: Curtiss-Wright		Supplier's Name: Curtiss-Wright	
Street Address: 18001 Sheldon Road		Street Address: 18001 Sheldon Road	
City: Middleburg Hts.	State: OH	City: Middleburg Hts.	State: OH
Postal Code: 44130	Emergency Telephone: +1.216.267.3200	Postal Code: 44130	Emergency Telephone: +1.216.267.3200
Date MSDS Prepared: 2/1/16	MSDS Prepared By: Raymond Moody	Phone Number: +1.216.267.3200	

Section 2 –Composition/Information on Ingredients

Hazardous Ingredients (specific)	%	CAS Number	OSHA PEL	ACGIH TLV
Hydroxylamine	<0.01%	5470-11-1		

Section 3 – Hazards Identification

Route of Entry: ☒ Skin Absorption/contact ☒ Eye Contact ☒ Inhalation ☒ Ingestion

[Emergency Overview]

Release of large amounts of dust may cause upper respiratory tract irritation and dust-related lung disease. Dermal irritation and allergic skin reaction if dust contacts skin for prolonged or repeated periods. **WARNING:** *Contains fibers and particulates. Avoid Creating dust. Breathing Gasket dust may cause permanent lung damage.*

[WHMIS Symbols] N/A
[Potential Health Hazard] Eye – Eye contact may cause slight chemical and mechanical irritation.
Skin - Dermal irritation and allergic skin reaction if dust contacts skin for prolonged or repeated periods. May cause abrasion with resulting irritation and rash.
Inhalation - Release of large amounts of dust may cause upper respiratory tract irritation and dust related lung disease (fibrosis).
Ingestion – Low toxicity if ingested.

Section 4 – First Aid Measures

Skin Contact: Frequent washing will deter transitory chemical and mechanical dermatitis. If rash develops consult a physician.
Eye Contact: Immediately wash eyes with water for at least 5 minutes. Seek medical attention is discomfort persists.
Inhalation: Remove patient to fresh air. Seek medical attention.
Ingestion: Induce vomiting and seek medical attention.

Section 5 – Fire Fighting Measures

Flammable: ☒ Yes ☐ No	If yes, under what conditions? Heat Flame
Means of Extinction: Use water, DRY chemical, carbon dioxide, foam, or water spray. Use adequate personal protective equipment.	

Flashpoint (°C) and Method: >300°C	Upper Flammable Limit (% by Volume): No data	Lower Flammable Limit (% by Volume): Unknown
Auto ignition Temperature (°C):	Explosion Data – Sensitivity to impact:	Explosion Data – Sensitivity to Static Discharge:

>300°C	Unknown	Unknown

Hazardous Combustion Products:

Carbon Monoxide

[NFPA]:

N/A

Section 6 – Accidental Release Measures

Leak and Spill Procedures:

As sheet Gasketing, product does not spill or create a release. Accumulated dust may be vacuumed using a vacuum fitted with a HEPA filter or wet mopped for cleanup.

Section 7 – Handling and Storage

Handling Procedures and Equipment:

In normal handling of sheet and gaskets, no significant release of dust occurs.

Storage Requirements:

While there are no hazards associated with storage we recommend the following storage conditions.

Storage temperature below 75°F

Humidity between 50% - 60%

Darkened storage room

If these conditions are met, a useful life of 5 years can be expected.

Section 8 – Exposure Controls/Personal Protection

Exposure limits: ☐ ACGIH TLV ☐ OSHA PEL ☐ Other (specify)

Specific Engineering Controls (such as ventilation, enclosure process)

Ventilation needed only for dust-producing activities. Local exhaust may be necessary for some applications.

Personal Protective Equipment ☒ Gloves ☒ Respirator ☒ Eye ☐ Footwear ☒ clothing ☐ other

If marked, please specify type:

Skin protection - For brief contact, no precautions other than clean body-covering clothing should be needed. When prolonged or frequent repeated contact could occur, use protective clothing and gloves such as butyl

rubber to prevent skin irritation and dermatitis.
Respiratory Protection - Respiratory protection is not required under normal processing of sheet gaskets. Respiratory protection is required when dust-emitting activates (grinding, pile driving, sanding, etc.) are performed. Use only NIOSH/MSHA approved air-purifying respirators or positive pressure, self-contained breathing apparatus when exposure guidelines are greatly exceeded. In confined or poorly ventilated areas, use approved SCBA device.
Eye Protection – Safety glasses are recommended when dust-emitting activates occur.

Section 9 – Physical and Chemical Properties

Physical State:	Odor and Appearance:	Odor Threshold:
Solid	Slight odor, off-white or tan in color	Not relevant
Specific Gravity:	Vapor Density (air =1):	Vapor Pressure (mmHg):
.92	N/A	N/A
Evaporation rate:	Boiling Point (°C):	Freezing Point (°C):
N/A	N/A	N/A
pH:	Coefficient of Water / Oil Distribution:	[Solubility in Water]:
N/A	N/A	Insoluble

Section 10 – Stability and Reactivity

Chemical Stability	If no, under which conditions?
☒ Yes ☐ No	
Incompatibility With Other Substances	If yes, which ones?
☒ Yes ☐ No	Strong oxidizers, strong Acids and bases

(Conditions to avoid) Avoid open flame, welding arcs, or high temperature sources which induce thermal decomposition.
Reactivity and under what conditions: (Specific materials to avoid) Avoid strong oxidizers, strong Acids and bases. Exposure to these chemicals may cause premature product degeneration.
Hazardous Decomposition Product:

Carbon dioxide and carbon monoxide.

Section 11 – Toxicological Information

Effects of Acute Exposure:

Inhalation or ingestion of finely divided powder or dust may be harmful.

Effects of Chronic Exposure:

Contains fibers and particulates. Avoid Creating dust. Breathing Gasket dust may cause permanent lung damage.

Irritancy of Product:

Relative

Skin Sensitization:	Respiratory Sensitization:
Relative	Relative
Carcinogenicity **– IARC**:	Carcinogenicity **– ACGIH:**
Not listed as Carcinogenic	Not listed as Carcinogenic
Reproductive Toxicity:	Teratogenicity:
No data available	No data available
Embryo toxicity:	Mutagenicity:
No data available	No data available

Name of Synergistic Products / Effects:

No data available

[Optional, not required under WHMIS]

Section 12 – Ecological Information

Aquatic Toxicity:

No data available

Section 13 – Disposal Considerations

Waste Disposal:

Sheet gasket materials are *not* hazardous waste as defined under RCRA. However, since waste disposal laws vary within states and municipalities, disposal of these products should be in accordance with all local, state,

and federal laws and regulations (contact local or state environmental agencies for specific rules).

Section 14 – Transport Information

Special Shipping Information:

No special precautions necessary.

	PIN N/A
TDG: N/A	[DOT] Not regulated
[IMO] N/A	[ICAO] N/A

Section 15 – Regulatory Information

[WHMIS Classification] Not regulated	[OSHA] Not regulated
[SERA] Not regulated	[TSCA] Not regulated

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and MSDS contains all of the information required by CPR.

Section 16 – Other Information

Use: The limitations of use decrease significantly as gasket thickness increases. Do not use a thicker gasket material or "double gaskets" to solve a gasket problem without first consulting the manufacturer. Curtiss-Wright engineers can advise on gasket selection and installation based on specified operating conditions. If you are in any doubt, visit our website at www.cwnuclear.com , fax us at 724-295-6201 or phone us at +1.216.267.3200.

All gaskets should be cut by trained personnel only. Incorrect cutting can produce weaknesses in a gasket that may not be visible, but could cause failure. Gasket installation should be carried out by trained personnel only.

The ability of a gasket material to make and maintain a seal depends not only on the quality of the gasket material, but also on medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled into the flanges and tightened.

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The higher the operating pressure and/or temperature, the greater the care and expertise required in selecting and installing gaskets. This includes, but is not limited to: confirmation that the flanges are suitable for the intended use; the finish on the flange faces; the parallelism of the flange faces; confirmation that the studs, bolts, washers and nuts are suitable for the intended use and in good condition; no anti stick compound is applied to the flanges or gaskets; confirmation that the gasket material and thickness are suitable for the intended use; and the gasket is evenly loaded by the correct tightening sequence of the bolts or studs, and to the correct torque to give the required gasket assembly stress. The use of torque wrenches, hydraulic bolt tensioners or other loading devices can assist achievement of the correct gasket stress.
The application of release agents to the gasket or flanges may cause gasket failure.
Because conditions of use are beyond the manufacturer's control, it is the responsibility of the user to ensure that the product is suitable for the intended use.
WARNING: Catastrophic gasket failure can be caused by steam or water hammer. Steam or water hammer can cause an instantaneous increase in internal pressure on the assembly that far exceeds the design or test pressures. Where water hammer exists, the basic problem should be corrected. DO NOT USE AP MATERIAL IN APPLICATIONS WHERE WATER OR STEAM HAMMER MAY STRESS THE GASKET BEYOND ITS DESIGN TOLERANCES
The information above is believed to be accurate and represents the best information available to us. However, we make no warranty expressed or implied, with respect to such information, and we assume no liability resulting from its use.

[Optional, not required under WHMIS]