

SAFETY DATA SHEET

PHOS-4-FADE® PHOSPHORUS REMOVAL TABLETS

EMERGENCY TELEPHONE: (800) 424-9300

DATE PREPARED: JANUARY 2018

I. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	Phos-4-Fade®	SUPPLIER	Norweco, Inc.
CHEMICAL NAME	Aluminum Sulfate		220 Republic St.
CHEMICAL ABSTRACT SERVICE NO.	CAS #10043-01-3		Norwalk, OH USA 44857
CHEMICAL FAMILY	Sulfuric Acid, Aluminum Salt (3:2)	EMERGENCY TELEPHONE NUMBER	(800) 424-9300
FORMULA	Al ₂ (SO ₄) ₃	TECHNICAL PHONE NUMBER	(800) NORWECO, (800) 667-9326

II. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW	DANGER! May cause irritation to eyes, skin and throat. Ingestion may irritate gastrointestinal tract. May cause damage to reproductive system, mucous membranes, skin, eyes and urinary system.
POTENTIAL ACUTE HEALTH EFFECTS	
INHALATION	Inhalation may irritate the nose, throat and upper respiratory tract. It may also cause burns to the respiratory tract with the production of lung edema which can result in shortness of breath, wheezing, choking, chest pain and impairment of lung function. Inhalation of high concentrations can result in permanent lung damage. Chronic (repeated) inhalation exposure may cause impairment of lung function and permanent lung damage.
INGESTION	Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration.
SKIN	Irritation with rash
EYES	Irritation with burning
OVER EXPOSURE SIGNS/SYMPTOMS	
INHALATION	Adverse symptoms may include the following: nose, throat and respiratory tract irritation
INGESTION	Adverse symptoms may include the following: irritation and/or burns
SKIN	Adverse symptoms may include the following: irritation, rash
EYES	Adverse symptoms may include the following: irritation
MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE	Not available



III. CONSUMPTION/INFORMATION ON INGREDIENTS

ALUMINUM SULFATE	93%	INERT INGREDIENTS	7%
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THERE ARE NO ADDITIONAL INGREDIENTS PRESENT, WITHIN THE CURRENT KNOWLEDGE OF THE SUPPLIER AND IN THE CONCENTRATIONS APPLICABLE THAT ARE CLASSIFIED AS HAZARDOUS TO HEALTH OR THE ENVIRONMENT AND HENCE REQUIRE REPORTING IN THIS SECTION.

IV. FIRST AID PROCEDURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.	
EYE CONTACT	Immediately flush with large amounts of water for fifteen (15) minutes, rinsing eye thoroughly. Get medical attention.
SKIN CONTACT	Wash with plenty of soap and water for fifteen (15) minutes. Remove contaminated clothing and wash before reuse. If skin irritation occurs, get medical attention.
INHALATION	Remove to fresh air. Give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Seek medical attention immediately.
INGESTION	If <u>conscious</u> , drink a large quantity of water. Do NOT induce vomiting. Take immediately to hospital.
	If <u>unconscious</u> , or in convulsions, seek medical attention immediately. Do not give anything by mouth to an unconscious person.
NOTE TO PHYSICIAN	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested.

V. FIRE-FIGHTING MEASURES

FLAMMABILITY OF THE PRODUCT	Not available
EXTINGUISHING MEDIA	
SUITABLE	Use any fire fighting agent appropriate for surrounding material; use water spray, carbon dioxide, dry chemical or foam.
NOT SUITABLE	Not applicable
SPECIAL EXPOSURE HAZARDS	Sulfur dioxides may be formed at temperatures above 760°
HAZARDOUS COMBUSTION PRODUCTS	Sulfur oxides, Aluminum oxide
SPECIAL FIREFIGHTING PROCEDURES	Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

VI. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Wear appropriate personal protective equipment if required.
ENVIRONMENTAL PRECAUTIONS	Not Applicable
LARGE SPILL	Use extreme caution in handling spilled material. If fire or decomposition occurs in area of spill, immediately douse with plenty of water. Otherwise, sweep up all visible material using a clean, dry shovel and broom and dissolve material in water. Care must be taken when using or disposing of chemical materials to prevent environmental contamination. It is your duty to dispose of the chemical materials and/or their containers in accordance with the clean air act, the clean water act and RCRA regulations.
SMALL SPILL	Use extreme caution in handling spilled material. If fire or decomposition occurs in area of spill, immediately douse with plenty of water. Otherwise, sweep up all visible material using a clean, dry shovel and broom and dissolve material in water. Care must be taken when using or disposing of chemical materials to prevent environmental contamination. It is your duty to dispose of the chemical materials and/or their containers in accordance with the clean air act, the clean water act and RCRA regulations.
REFERENCE TO OTHER SECTIONS	See Section I for emergency contact information. See Section VIII for information on appropriate personal protective equipment. See Section XIII for additional waste treatment information.

VII. HANDLING AND STORAGE

HANDLING	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Use caution in handling spilled material. Put on appropriate personal protective equipment (see Section VIII). Do not swallow. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container with the lid securely closed. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.
STORAGE	Store in a cool, dry, well-ventilated area away from heat or flames. Stock should be rotated on a first-in, first-out basis. Store tablets in their original container with the lid tightly closed. Store tablets away from combustible materials such as paper, petroleum products, chemical rags or cardboard. In case of contamination, do not reseal container. Do not allow moisture to enter the pail during storage or while removing tablets for use. If possible, isolate container in open air or well-ventilated area. Flood tablets and container with large volumes of water to dissolve all materials, then discard container. Do not reuse the empty container.

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VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONSULT LOCAL AUTHORITIES FOR ACCEPTABLE EXPOSURE LIMITS

RECOMMENDED MONITORING PROCEDURES	Per OSHA & ACGIH no permissible exposure limits have been established.
ENGINEERING MEASURES	Handle in accordance with good industrial hygiene and safety practice.
HYGIENE MEASURES	Wash hands before breaks and at the end of workday.
PERSONAL PROTECTION	
EYES	Safety glasses
HANDS	Gloves should be worn
GLOVES	Natural or synthetic rubber
RESPIRATORY	Respiratory protection is not required under normal use, however when necessary, use NIOSH/MSHA approved respirator following manufacturer's recommendations. NIOSH approved dust mask is essential where dusting may occur.
SKIN	Boots, aprons or chemical suits as required to prevent skin contact.
ENVIRONMENTAL EXPOSURE CONTROLS	Not applicable

IX. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Solid	RELATIVE DENSITY (g/mL)	1.69 g/mL at 25°C (77°F)
FLASH POINT	Not available	VAPOR PRESSURE	Not available
DECOMPOSITION TEMPERATURE	Not available	VAPOR DENSITY	Not available
MATERIAL SUPPORTS COMBUSTION	Not applicable	VOLATILITY	Not available
COLOR	White tablet	EVAPORATION RATE	Not available
ODOR	Slight acid odor	VISCOSITY	Not applicable
pH	3.5	SOLUBILITY	Not available
BOILING/CONDENSATION POINT	Not applicable	WATER SOLUBILITY AT ROOM TEMPERATURE	Not available
MELTING/FREEZING POINT	86.5°C (187.7 °F)	PARTITION COEFFICIENT NOCTANOL/WATER	Not available
SPECIFIC GRAVITY	1.61 (H ₂ O = 1)	% SOLID (W/W)	Not available

X. STABILITY AND REACTIVITY

STABILITY	Stable under recommended storage conditions.
REACTIVITY	Not available
CONDITIONS TO AVOID	Avoid temperatures above 760°C, as this will yield toxic and corrosive gases.
MATERIALS TO AVOID	Incompatible with strong oxidizing agents.
HAZARDOUS COMBUSTION PRODUCTS	At elevated temperatures, sulfur dioxides may be formed. These are toxic and corrosive. The loss of these gases leaves a caustic residue.
POSSIBILITY OF HAZARDOUS REACTIONS	Not applicable

XI. TOXICOLOGICAL INFORMATION

PERMISSIBLE ACUTE	2 mg/m ³ , 10 hr TWA
INHALATION	Inhalation may irritate the nose, throat and upper respiratory tract. It may also cause burns to the respiratory tract with the production of lung edema which can result in shortness of breath, wheezing, choking, chest pain and impairment of lung function. Inhalation of high concentrations can result in permanent lung damage. Chronic (repeated) inhalation exposure may cause impairment of lung function and permanent lung damage
EYE/SKIN INGESTION	Irritation with rash and burning feeling. Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration.
CHRONIC	There are no known or reported effects from chronic exposure.

XII. ECOLOGICAL INFORMATION

ECOLOGICAL TOXICITY VALUES	No information available
ENVIRONMENTAL EFFECTS	Not applicable
BIODEGRADABILITY	Not applicable

XIII. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL	Dispose in accordance with all local, state and federal regulations.
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XIV. TRANSPORTATION INFORMATION

IDENTIFICATION NUMBER	UN 3077	I.M.O. DESCRIPTION	Aluminum Sulfate, Dry, Class 9, UN 3077
PACKING GROUP	III	U.S. DOT SHIPPING NAME	Environmentally Hazardous Substances, Solid, N.O.S. (contains aluminum sulfate)
REPORTABLE QUANTITY	5,000 lbs.		
HMIS/NFPA RATING	1/0/0	U.S. DOT HAZARD CLASS	9

XV. REGULATORY INFORMATION

UNITED STATES INVENTORY (TSCA)	Yes
CANADA REGULATIONS (WHMIS)	Not controlled
CERCLA HAZARDOUS SUBSTANCE	No
SARA TITLE III	Non-hazardous

XVI. OTHER INFORMATION

OTHER SPECIAL	Not applicable
DATE OF ISSUE	January 21, 2018