

MATERIAL SAFETY DATA SHEET

MANA X-Act

Page 1 of 4

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **MANA X-Act (PCP28225)**
Chemical Name: Phosphate Ester Surfactant
Registrant:/Manufacturer: ADAMA Agricultural Solutions Canada Ltd.
302-179 McDermot Ave.
Winnipeg, Manitoba, Canada
Phone: 1-855-264-6262
For fire, spill, and/or leak emergencies, contact Phone: 1-800-535-5053
Infotrac:
For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	%	ACGIH/TLV	OSHA/PEL	OTHER	NTP/IARC/OSHA (Carcinogen)
Phosphate Ester Surfactant	NA	30	NA	NA	NA	NA
Phosphoric acid	7664-38-2	<1	3.0 mg/m ³ (STEL) 1.0 mg/m ³ (TWA)	1.0 mg/m ³ (TWA)	3.0 mg/m ³ (STEL) 1.0 mg/m ³ (TWA) (NIOSH)	NA
NA – Not applicable						

3. HAZARDS IDENTIFICATION

PHYSICAL PROPERTIES:

Appearance: Clear amber liquid
Odor: Oil smell

EMERGENCY OVERVIEW: WARNING Skin irritant. Danger – Eye irritant. Potential skin sensitizer. Causes skin and mucous membrane irritation. Do not get on skin. Severely irritating to the eyes. Do not get into eyes.

PRIMARY ROUTES OF EXPOSURE: Skin and eyes.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides and other toxic gases may be formed if product is involved in a fire.

4. FIRST AID MEASURES

FIRST AID:

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take the container label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

MATERIAL SAFETY DATA SHEET

MANA X-Act

Page 2 of 4

5. FIRE FIGHTING MEASURES

FLASH POINT AND METHOD: 103.3°C (218°F) (TCC)

EXTINGUISHING MEDIA: Dry chemical, foam, carbon monoxide, and water fog.

FIRE FIGHTING PROCEDURES: Firefighters should wear full fire-fighting gear (full Bunker gear) including NIOSH-approved self-contained breathing apparatus with full-face piece operated in the pressure demand or other positive pressure mode.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen chloride, and oxides of sulfur.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind of spill. Keep out of low areas. Ventilate closed spaces before entering. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Wear appropriate personal protective equipment during cleanup. Small spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Large spills: Dike ahead of liquid spill for later disposal. Prevent entry into waterways, basements or confined areas. Surfaces may become slippery after spillage. Dispose according to Section 13.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Avoid contact with skin and eyes. Wash thoroughly after handling. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in a dry, well-ventilated area.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATION AND ON-FARM APPLICATIONS, CONSULT THE PRODUCT LABEL.

EYE PROTECTION: Goggles or face shield.

SKIN PROTECTION: Wear suitable protective clothing.

HAND PROTECTION: Use chemical-resistant gloves.

RESPIRATORY PROTECTION: If vapors are present or irritation is experienced, NIOSH-approved respiratory protection for acidic vapors should be worn.

ADDITIONAL PROTECTIVE MEASURES: Eye wash fountain and emergency showers are recommended. Avoid contact with skin, eyes and clothing. Goggles, face shield and gloves should be worn when handling, mixing and loading. Wash concentrate from skin or eyes immediately. Avoid breathing vapors or spray mist. Avoid working in spray mist. After use, wash hands and other exposed skin thoroughly. Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. Avoid contamination ponds, streams, rivers and other water sources.

USER SAFETY RECOMMENDATIONS:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if product gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 2.

MATERIAL SAFETY DATA SHEET

MANA X-Act

Page 3 of 4

ENGINEERING CONTROLS: Use adequate ventilation to keep the airborne concentration of this material below the recommended exposure standards.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear amber liquid

ODOR: Oil smell

pH: 2.30 ± 0.02

VISCOSITY (KINEMATIC): 38.648 @ 20°C; 19.190 @ 40°C

DENSITY: 0.943 g/ml

FLASH POINT: 103.3°C (218°F) (TCC)

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

MATERIALS TO AVOID: Not compatible with 10% potassium permanganate. This product may react with strong oxidizing agents, alkalis.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Upon decomposition, this product may emit phosphorous oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD50 (Rat):	>5,000 mg/kg
Acute Dermal LD50 (Rat):	>5,000 mg/kg
Acute Inhalation LC50 (Rat):	>5.09 mg/L
Eye Irritation (Rabbits):	Severely irritating.
Dermal Irritation (Rabbits):	Moderately irritating.
Dermal Sensitization (Guinea pig):	A skin sensitizer.

12. ECOLOGICAL INFORMATION

No ecological information available.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT DISPOSAL: For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial agency in case of a spill and for cleanup of spills.

CONTAINER DISPOSAL: Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking your container to the collection site, triple- or pressure-rinse the empty container. Add the rinsing to the spray mixture in the tank. Make the empty, rinsed container unsuitable for further use. If there is not container collection site in your area, dispose of the container in accordance with provincial requirements.

14. TRANSPORT INFORMATION

CANADIAN TDG CLASSIFICATION:

Not regulated.

DOT CLASSIFICATION:

Refer to bill of lading or container label for DOT or other transportation hazard classification, if any.

INTERNATIONAL TRANSPORTATION:

IMO (vessel): Not regulated

IATA (air): Not regulated

MATERIAL SAFETY DATA SHEET

MANA X-Act

Page 4 of 4

15. REGULATORY INFORMATION

CANADIAN REGULATIONS:

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

Phosphoric acid solutions meet the Canadian WHMIS criteria for Class E – Corrosive.

Phosphoric acid is listed on Canada's Domestic Substance List (DSL).

U.S. FEDERAL REGULATIONS:

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Section 313: Not applicable.

CA PROPOSITION 65: Not applicable.

CERCLA RQ: Phosphoric acid (5,000 lbs).

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

HAZARD RATINGS

	NFPA		
HEALTH:	2	0	MINIMAL
FLAMMABILITY:	1	1	SLIGHT
REACTIVITY:	0	2	MODERATE
		3	HIGH
		4	SEVERE

MSDS DATE 1-18-16. Supersedes versions dated 6-5-15, 6-7-12, 6-1-09 and 1-31-06. Changes made to Sections 1, 2, 8 and 14.

The information contained herein is given in good faith and is believed to be correct, but no warrant, express or implied, is made. Consult ADAMA Agricultural Solutions Canada Ltd. for further information.