

TKO Phosphite 0-29-26

Section 1 -- IDENTIFICATION

1.1. Product Identifier

Product name: TKO Phosphite 0-29-26
Synonym: 100% Phosphite, Mono & dipotassium salts of phosphorus acid

1.2. Recommended Use / Restrictions

Identified Uses: For agriculture, turf, ornamentals, trees, crops & hydroponics
Restrictions: N/A

1.3. Supplier Details

Company: Growth Products, Ltd.
80 Lafayette Avenue
White Plains, NY 10603-1603 USA
+011 914-428-1316 (9 am - 5 pm EST Mon - Fri)
questions@growthproducts.com

1.4. Emergency Telephone Number

Emergency Telephone: 800-222-1222 (American Association of Poison Control Centers)

Section 2 -- HAZARD(S) IDENTIFICATION

2.1. Classification of substance or mixture

OSHA Hazards: **This product is not considered hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.**

Physical Hazards: Skin Corrosion/Irritation 2 - H315
Eye Damage/Irritation 2A - H319

Health Hazards (Potential Effects): STOT SE 3 – H335

Target Organs: Eyes, Skin, Respiratory System & Lungs

Environmental Hazards: Not Classified

2.2. Label Elements

Pictogram:



Signal Word: WARNING!

Hazard Statements: H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Precautionary Statements:

Please see product label
P261 Avoid breathing mist/vapours/spray
P264 Wash hands/face/exposed skin thoroughly after handling
P271 Use only indoors or in well-ventilated area
P280 Wear protective gloves/eye and face protection
P302+P352 IF ON SKIN: Wash with plenty of water
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing

Precautionary Statements
Continued:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a poison center / doctor if you feel unwell
P332+P313 If skin irritation or rash occurs: Get medical advice/attention
P337+P313 If eye irritation persists: Get medical advice/attention
P403+P233+P405 Store in well-ventilated place. Keep container tightly closed. Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

2.3. Other Hazards

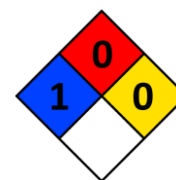
This product does not contain any substance classified as PBT or vPvB

NFPA Ratings

Health:	1	Slightly hazardous
Flammability:	0	Will not burn
Reactivity:	0	Stable
Specific Hazard:	N/A	Not applicable

HMIS Ratings

Health:	0	Minimal hazard
Flammability:	0	Minimal hazard
Reactivity:	0	Minimal hazard
Personal (PPE):	B	Goggles, Gloves



Health	<i>minimal</i>	0
Flammability	<i>minimal</i>	0
Physical Hazard	<i>minimal</i>	0
Personal Protection		B

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Chemical Name	CAS Registry No.	ENECS No.	Classification
Monopotassium phosphite:	13977-65-6	-	N/A
Dipotassium phosphite:	13492-26-7	-	N/A

Section 4 -- FIRST-AID MEASURES

4.1. Description of first-aid measures

Inhalation: Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if symptoms are severe or persist.

Ingestion: Never give anything by mouth to an unconscious person. Do not induce vomiting, unless instructed by a healthcare professional. Rinse mouth thoroughly with water. Get medical attention if any symptoms develop.

Skin Contact: Remove affected person from source of contamination. Take off immediately all contaminated clothing and wash it before reuse. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

4.2. Most important symptoms and effect, both acute and delayed

Inhalation: May cause respiratory irritation. There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: Ingestion may cause nausea, vomiting and stomach and digestive irritation. There may be soreness and redness of the mouth and throat.



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- Skin Contact:** Skin contact may cause redness and irritation. Prolonged or repeated skin contact can result in the development of allergy-like skin reactions (e.g., dermatitis, rashes)
- Eye Contact:** There may be irritation and redness. Profuse watering of the eyes.
- 4.3. Indication of any immediate medical attention and special treatment needed**
- Notes for doctor:** No specific recommendations. If in doubt, get medical attention promptly. Treatment may vary with the condition of victim and specifics of incident.
- Specific treatments:** Eye bathing equipment should be available on the premises.

Section 5 -- FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: The product is not flammable. Use fire-extinguishing media suitable for the surrounding environment. The substance itself does not burn.

Unsuitable extinguishing media: N/A

Environmental Hazards:

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: N/A

5.3. Advice for firefighters

Protective actions during firefighting: No specific firefighting precautions known. Irritant, non-flammable, water soluble. Do not inhale gases created by fire. Do not allow run-off from firefighting to enter drains or watercourses.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) eye protection and appropriate protective clothing.

Section 6 -- ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions: Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleanup

Methods for cleaning up: Stop leak if possible without risk. Contain and absorb spillage with sand, earth or other noncombustible material. Transfer to a container for disposal. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections: For personal protection, see Section 8. For waste disposal, see Section 13.

Section 7 -- HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Using precautions: Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Wash hands thoroughly after handling.

Advice on general occupational hygiene: Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage precautions:

Store in tightly closed original container in a dry, cool and well-ventilated place. Store at temperatures above 5°C. Keep away from heat and direct sunlight. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Specific end use(s):

The identified uses for this product are detailed in Section 1.2.

Section 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control Parameters

Occupational exposure limits

Material	Type	Value	Source
Monopotassium phosphite (CAS 13977-65-6):	N/A	N/A	N/A
Dipotassium phosphite (CAS 13492-26-7):	N/A	N/A	N/A

8.2. Exposure controls

Protective equipment

General information:

Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

Appropriate engineering controls:

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation.

Eye / face protection:

Use chemical splash-type goggles. Face shield.

Hand protection:

For hand protection, wear approved gloves made of nitrile, PVC, or neoprene. Thoroughly rinse the outside of gloves with water prior to removal. Inspect regularly for leaks.

Other skin and body protection:

For body protection wear suitable protective clothing.

Hygiene measures:

Avoid breathing vapors, mist or gas. Clean water should be available for washing in case of eye or skin contamination.

Respiratory protection:

If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA) or other approved air-supplied respirator (ASR) equipment (e.g., a full-face airline respirator (ALR)).

Environmental exposure controls:

Eye bathing equipment should be available on the premises. Provide quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

Equipment:

HMIS Letter:

B



Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State:	Liquid	Evaporation Rate:	Same as water
Color	Clear, no color	Boiling Point:	About 212°F / 100°C
Odor:	Slightly acidic odor	Freezing Point:	-15°F / -26°C
Weight per Gallon / Liter:	12.5# @ 70°F / 1.49 Kg @ 21°C	Viscosity:	5-15 cps @ 21 Degrees C
Storage Life at 70F:	>2 years	Flash Point/Method:	Noncombustible
pH – 21C:	6.5	Vapor Pressure:	N/A
Solubility:	Completely miscible	Storage Temperature:	Above 32°F / 0°C

Section 10 -- STABILITY AND REACTIVITY

10.1. Reactivity	Stable
10.2. Chemical Stability	Stable under normal recommended storage conditions.
10.3. Possibility of Hazardous Reactions	N/E
10.4. Conditions to Avoid	Exposure to extreme temperatures and incompatible materials
10.5. Incompatible Materials	N/E
10.6. Hazardous Decomposition Products	N/E

Section 11 -- TOXICOLOGICAL INFORMATION
11.1. Information on Toxicological Effects

Toxicological effects:	N/E. No data available.
Over Exposure, Acute:	Liquid contact may cause slight eye irritation and repeated skin exposure may cause skin irritation.
Over Exposure, Chronic:	N/E
Routes of Exposure:	Not expected to be harmful under normal conditions of use, however if allowed to become airborne, may cause irritation of nose throat and lungs. May cause irritation from prolonged or repeated contact.
Acute, Dermal LD₅₀:	N/E
Acute, Oral LD₅₀:	N/E
Effects to eyes:	No corneal or iridal effects were noted at dose of 0.1 ml, rabbits.
Effects to Ingestion	Non-toxic and non-pathogenic
Effects to skin:	Moderate irritation, reversible within 7 days

11.2. Toxicological information on main components of the mixture:

Carcinogenicity Assessment: Bacillus subtilis: test not required for microorganisms

Mutagenicity Assessment: Bacillus subtilis: test not required for microorganisms

ACGIH: None **NTP:** None **IARC:** None **OSHA:** None

Section 12 -- ECOLOGICAL INFORMATION
Ecotoxicity:

12.1. Toxicity	N/A
12.2. Persistence and degradability	N/E
12.3. Bioaccumulative potential	Expected to desorb fairly rapidly from soil and not bioaccumulate.
12.4. Mobility in Soil	This product is biodegradable in soil by microbial activity
12.5. Results of PBT and vPvB Assessment	Not listed in EIS PBT List.
12.6. Other Adverse Effects	N/E

Section 13 -- DISPOSAL CONSIDERATIONS
13.1. Waste Treatment Methods

Disposal methods: Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product, residue and/or container. Product as shipped Section 13.

Section 14 -- TRANSPORTATION INFORMATION

General Product is a non-regulated material; not flammable, not corrosive, not explosive and not radioactive.
In accordance with DOT / TDG / ADR / RID / ADNR / IMDG / ICAO / IATA

Regulatory Information	14.1 UN Number	14.2 Proper Shipping Name	14.3 Class(es)	14.1 Packing Group	14.5 Environmental Hazard	14.6 Special Precautions For User	Additional Information
ADR / RID Class	Not regulated for transportation	Not regulated	Not regulated	Not regulated	Not classified as marine pollutant	N/A	N/A
ADNR Class	Not regulated for transportation	Not regulated	Not regulated	Not regulated	Not classified as marine pollutant	N/A	N/A
IMDG Class	Not regulated for transportation	Not regulated	Not regulated	Not regulated	Not classified as marine pollutant	N/A	N/A
IATA class	Not regulated for transportation	Not regulated	Not regulated	Not regulated	Not classified as marine pollutant	N/A	N/A

14.7. Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code: N/A

Section 15 -- REGULATORY INFORMATION

15.1. Safety, health and Environmental Regulations / Legislation Specific for the Substance or Mixture

EU legislation:

This product is labeled in accordance EU directives. The Dangerous Substance Directive (Directive (67/548/EEC, "DSD"), The Dangerous Preparations Directive (Directive 1999/45/EC, "DPD") and the new regulations classification, labeling and packaging of substances and mixtures, Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 453/2010 of May 2010.

15.2. Chemical Safety Assessment

See Section 2.3 for NFPA & HMIS Ratings

Section 16 - OTHER INFORMATION

REVISED DATE: 7 September 2016

Other Precautions:

Read entire label before using

Abbreviations / Acronyms:

- N/E Not Established
- N/A Not applicable
- ACGIH American Conference of Governmental Industrial Hygienists
- TLV Threshold Limit Values
- PEL Permissible Exposure Limit
- REL Recommended Exposure Limit
- OSHA Occupational Safety and Health Administration
- NIOSH National Institute for Occupational Safety and Health
- TWA Time Weighted Average over 8 hours of work
- TLV Threshold Limit Value over 8 hours of work
- REL Recommended Exposure Limit
- PEL Permissible Exposure Limit
- STEL Short Term Exposure Limit during x minutes
- IDLH Immediately Dangerous to Life or Health
- TSCA Toxic substance Control Act (United States)
- EINECS European Inventory of Existing Commercial Chemical Substances (Europe)
- ELINCS European List of Notified Chemical Substances (Europe)
- ENCS Existing Chemical Substances
- IECSC Inventory of Existing Chemical Substances



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HMIS	Hazardous Material Identification System (American Coatings Association)
NFPA	National Fire Protection Association
PBT	Persistent Bioaccumulative and Toxic
vPvB	Very Persistent and very Bioaccumulative
STOT SE	Specific Target Organ Toxicity; Single Exposure
STOT RE	Specific Target Organ Toxicity; Repeated Exposure
GER-MAK	Germany Maximum Workplace Concentration
DOT	Department of Transportation
TDG	Transportation of Dangerous Goods (Canada)
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail (EU)
ADNR	Regulation for the Carriage of Dangerous Substances on Waterways (EU)
IMDG	International Maritime Dangerous Goods
ICAO	International Civil Aviation Organization
IATA	International Air Transport Association

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