



AUD-AD-140-2012 : رقم التسجيل
17-01-2025 : التاريخ

قطاع التنوع الغذائي
إدارة التنمية والصحة الزراعية

مقيد	كيميائي	تسجيل مبيد
مبيد افات زراعية (حشري/ للمخازن و الصوامع)		
تشهد وزارة التغير المناخي والبيئة بأن المبيد بالمواصفات التالية		
Fumaphos Fumigation Tablets	: الاسم التجاري للمبيد	
الصين	: بلد التسجيل	
Aluminium Phosphide 560 g/kg	: المواد الفعالة وتركيزها	
20859-73-8	: CAS RN	
Tablet	: صورة المستحضر	
90,1000	: جرام العبوة	
Jining High Technology Development Zone - الصين	: بلد (التسجيل/ المنشأ) والشركة المنتجة	
شيروود الشرق الاوسط لتجارة المبيدات - شركة الشخص الواحد ذ م	: الشركة المحلية المستوردة	
16-11-2029	: تاريخ إصدار الشهادة	
17-01-2025	: صالحة حتى	
	: ملاحظات	لا يوجد

وجد مطابقا لنظام تسجيل المبيدات المتبع لديها وقد أعطيت له هذه الشهادة بناء على ذلك.

ملاحظات :

- يعاد تقييم المبيد كل خمس سنوات حتى يتم تجديد هذه الشهادة بعد ذلك.
- تلغى هذه الشهادة في حالة شطب أو سحب المبيد من قبل المنظمات والهيئات العالمية المختصة في تسجيل المبيد أو ثبت للوزارة تدهور المبيد أثناء فترة صلاحيته تحت الظروف البيئية للدولة أو ثبت أن لديه آثار جانبية ضارة

سددت الرسوم 3021.42 درهم

رقم إيصال الشهادة : 10420943523624043613

تاريخ إيصال الشهادة : 28-11-2024

مدير إدارة الشؤون البلدية

رمز التحقق : 280-5387



للتحقق من صحة بيانات هذا
المستند يرجى مسح الشيفرة
أو زيارة موقع الوزارة

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طريقة الاستخدام:

يتكون المنتج من فوسفيد الألمونيوم بنسبة $\leq 56\%$.
يزن كل قرص 3 جرام. تتحول الأفراس إلى فوسفيد الألمونيوم عالي السمية وقابل للاحتراق عند تعرضها للحامض أو الهواء الرطب. يمكن استخدام المنتج لمنع مكافحة آفات الصناعات المخزنية بفعالية.

تقنيات وطرق الاستخدام:

- الحبوب السائلة: قم بتقسيم المبيد إلى حزم صغيرة في كل حزمة حوالي 25 قرص ثم قم بتوزيعها بشكل متساوي بمسافة 1.5 إلى 2 متر و حوالي 20 إلى 30 سنتيمتر تحت سطح الحبوب. يمكنك استخدام أنبوب مسبار بالنسبة للطبقات الوسطى.
- أكياس الحبوب المرصوفة: قم بتقسيم المبيد إلى حزم صغيرة في كل حزمة حوالي 25 قرص ثم قم بتوزيعها بشكل متساوي على أسطح أكياس الحبوب المرصوفة والطبقات الوسطى. 3/2 (تلتان) بالنسبة للأسطح و 3/1 (تلت) بالنسبة للطبقات الوسطى.
- الكمية المطلوبة من المبيد: كمية أكياس الحبوب المرصوفة + المساحة.
- يمكن فقط التعامل مع بقايا المبيد بعد سده بإحكام لمدة 5 إلى 7 أيام وتعرضه للهواء لمدة 3 أيام.

الاستخدامات:

المحصل أو التطاق	الآفات	الكمية المطلوبة	طرق الاستخدام
الضائع	الخنافس والسوس المجردة في الصناعات المخزنية	5 - 10 أفراس / 1000 كجم	التبخير المحكم
المخزنة	آفات متنوعة	1 - 4 أفراس / متر مكعب	التبخير المحكم
الحبوب	الخنافس والسوس وبقع الحبوب في الحبوب المخزنة	3 - 10 أفراس / 1000 كجم	التبخير المحكم
الثور	الخنافس والسوس في الثور المخزنة	3 - 10 أفراس / 1000 كجم	التبخير المحكم

DIRECTIONS FOR USE

The product is made of aluminum phosphide with content $\geq 56\%$.
One tablet weighs 3g. Tablets will turn into highly toxic and combustible aluminum phosphide when they are exposed to acid or air moisture. The product can be used for preventing and controlling storage pests effectively.

Usage techniques & methods:

- Bulk Grain: Divide the pesticide into small packages with around 25 tablets each pack, and distribute them evenly with a distance of 1.5 to 2 meters, 20 to 30 centimeters underneath grain surfaces. You may use a probe tube for middle layers.
- Stack Grain: Divide the pesticide into small packages with around 25 tablets each pack, and distribute them evenly on stack surfaces and middle layers. 2/3 for surfaces and 1/3 for middle layers.
- Required Amount of Pesticide: Stack amount + Space amount.
- One can only handle the residue after being sealed for 5 to 7 days, exposed in the air for 3 days.

Uses:

Crop (or scope)	Pests	Rates	Methods of application
Goods	Beetles and Weevils Found in Stored Products	5-10 Tablets / 1000 kg	Sealed fumigation
Space	Various Pests	1-4 Tablets / cubic meter	Sealed fumigation
Grain	Stored Grain Beetles, Weevils and Borer	3-10 Tablets / 1000 kg	Sealed fumigation
Seeds	Stored Seed Beetles and Borer	3-10 Tablets / 1000 kg	Sealed fumigation

Warranty: Our company warrants the quality of the pesticides; provided that it is sold in the original package. Our company is not responsible for any incident that may occur due to incorrect stoning, using, and mixing or non-compliance with technical instructions. The manufacturer and distributor guarantee the contents of the original container tightly closed and the warranty seal intact according to the terms of the label and leaflet. Consumers buy the product with full knowledge. The Company limits its liability in the sale of this product to the replacement thereof if it finds defective.

الضمان: تضمن الشركة المنتجة ثبات المواصفات الكيميائية والفيزيائية لهذا المبيد وسلامة عوائده الأصلية في التخزين المادي طيلة فترة صلاحيته تحت ظروف بولة الإمارات العربية المتحدة وحسب طريقة التخزين المشار إليها. يقوم المصنع والموزع بإغلاق الحاويات الأصلية بختم الضمان لضمان السلامة والتسليم وفقاً للشروط التنصتة يقوم المستهلك بالشراء هو مع معرفة كاملة. إن الشركة مسؤولة عن استبدال المنتج في حالة وجود خلل به.

P/Date:
E/Date:
Batch No.:

تاريخ الإنتاج:
تاريخ الانتهاء:
رقم التغليف:

المبيد مقيد الاستخدام بشدة

ليعبه ولاستخدامه فقط من قبل فنيين مرخصين أو تحت إشرافهم الفني المباشر

VERY RESTRICTED USE PESTICIDE

Strictly for use by highly trained applicator or usage must be under supervision of a licensed personnel

فومافوس أقراص تبخير FUMAPHOS FUMIGATION TABLETS

مبيد حشري تبخير لمنع ومكافحة آفات المخازن

Fumigating Insecticide for preventing and controlling storage pests

نوع التجهيزة ونسبة المواد الفعالة	المادة الفعالة
النسبة المئوية Percentage	المكونات Composition
560 g/kg	المادة الفعالة Active Ingredient فوسفيد الألمونيوم Aluminium Phosphide
440 g/kg	المواد الخاملة Inert Ingredients
1000 g/kg	المجموع Total

شديد السمية
Very Toxic



لا يستخدم هذا المبيد في المباني السكنية والشقق
Not for use in residential buildings & flats

المبيد محظور كمبيد صحة عامة
Prohibited as public health insecticide

رقم تسجيل المبيد بوزارة التغير المناخي والبيئة
MOCCAE Registration Number
AUD-AD-140-2012

الشركة المنتجة
Manufacturing Company
Jining High Technology
Development Zone, Yongfeng
Chemical Plant, Jining City,
Shandong Province, China

الموزع المحلي
Local Distributor
SHERWOOD
SHERWOOD MIDDLE EAST
Abu Dhabi, UAE
Tel.: +971 2 6718812
Fax: +971 2 6718813

المحتوى الصافي
Net Content
90g

التحذيرات:

- تجنب الرطوبة والناز وغيرها من المواد لظافة للاحتراق لا تم تخزين فوسفيد الألمونيوم مع المواد الحامضة أو المؤكسدة القوية وتحت ترضه لضوء الشمس المباشر. حافظ على تهيئة موقع تخزين المبيدات.
- هذا المنتج سام لثديتها ولهذا يجب تفادك من ارتداء قناع الوقاية من الغازات أثناء استخدامه.
- يرجى التقيد بصرامه بمعايير وإجراءات الاستخدام خلال التعامل مع المبيد.
- لا توجه فحة الرجاجة باتجاه أي شخص عند فتحه كما يرجى التوقف فوراً عن الاستخدام إذا تم الشعور بأي من أعراض السداع أو الصداع أو الصداع أو الصداع وغيرها من الأعراض، وبخذاً قطعاً من الرحلة في الهواء النقي، وإذا تلتفت هذه الأعراض يجب الذهاب فوراً إلى المستشفى.
- يمكن اختبار كثافة فوسفيد الألمونيوم بواسطة كاشف غاز مهني أو أنبوب الكشف.
- تجنب ملامسة الأطفال والنساء الحوامل والمرصعات.
- يمنع تماماً خلطه بلطعام أو العلف.

التسمم والإسعافات الأولية

- البلع عن طريق الخطأ سوف يسبب أعراض متعلقة بالجهاز الهضمي والحمى والصداع والحمى. قم بتأخذ التدابير مثل شرب ما يكفي من الماء الدافئ ودواء مضيق المعدة، وإرسال الشخص إلى أقرب مستشفى.
- امتصاص فوسفيد الألمونيوم سوف يؤدي إلى الصداع والحمى والتشنج والضعف وضيق الصدر وغيرها من الأعراض. ويجب أن يخرج المريض من الموقع فوراً إلى مكان بارد ويجيد التهوية، ولخذ الأوكروبين عن طريق الفم و فيتامين B6 وشرب ماء الطوكوز. إذا تلتفت الأعراض يجب لخذ المصعب إلى المستشفى فوراً.

التخزين والشحن

يجب تخزين المنتج في مكان بارد وجاف وجيد التهوية، وأن يحتمل بعيداً عن الطعام والمشروبات والحبوب والعلف والمؤكسدة والأحماض والتعامل بحرص أثناء التحميل والتفريغ وتجنب تسريه، كما يجب أن يتم تحته في مناطق نعل الصناعات الخطرة في الأيام ذات الطقس الصافي.

WARNINGS:

- Avoid damp, fire and other combustible material. Do not store aluminum phosphide with acid or strong oxidants and avoid direct exposure to the sun. Keep the pesticide storage ventilated.
- The product is highly toxic, hence make sure you wear a gas mask or canister whiling using it.
- While using it, please follow strictly the usage standards and procedures.
- Do not face the bottle mouth towards anyone as you open it. While using the product, please immediately discontinue working and rest in fresh air if you suffer from a headache, nausea, chest distress and etc. If severe, one must be sent to hospital immediately.
- The density of aluminum phosphide can be tested with a professional gas detector or detector tube.
- Avoid contact with children, pregnant women, and lactating women.
- Processing with food or fodder is strictly forbidden.

POISONING & FIRST-AID MEASURES

- Accidental eating will cause the symptoms of gastrointestinal tract, and fever, headache, dizziness, nausea, weakness, chest distress and etc. And the patient must be brought out of the site to somewhere cool, ventilated immediately, and take oral atropine, Vitamin B6, drink glucose water; if severe, must be taken to hospital.

STORAGE & SHIPPING

The product must be stored in cool, dry, ventilated poison storage, away from food, drinks, grain, fodder, oxidant, acid and handled gently during loading and unloading and avoid spilling, and shipped in dangerous goods transport vehicles in clear days.

طريقة الاستخدام:

يتكون المنتج من فوسفيد الألومنيوم بنسبة ≤ 56٪
يزن كل قرص 3 جرام. تتحول الأقراص إلى فوسفيد الألومنيوم عالي السمية وقابل للاحتراق عند تعرضها للحمض أو الهواء الرطب. يمكن استخدام المنتج لمنع ومكافحة آفات البضاعة المخزنة بفعالية.

تقنيات وطرق الاستخدام:

1. الحبوب السائبة: قم بتقسيم المبيد إلى حزم صغيرة في كل حزمة حوالي 25 قرص ثم قم بتوزيعها بشكل متساوي بمسافة 1.5 إلى 2 متر و حوالي 20 إلى 30 سنتيمتر تحت سطح الحبوب. يمكنك استخدام أنبوب مسبار بالنسبة للطبقات الوسطى.
2. أكياس الحبوب المرصوفة: قم بتقسيم المبيد إلى حزم صغيرة في كل حزمة حوالي 25 قرص ثم قم بتوزيعها بشكل متساوي على أسطح أكياس الحبوب المرصوفة والطبقات الوسطى. 3/2 (ثلاثان) بالنسبة للأسطح و 3/1 (ثلاث) بالنسبة للطبقات الوسطى.
3. الكمية المطلوبة من المبيد: كمية أكياس الحبوب المرصوفة + المساحة.
4. يمكن فقط التعامل مع بقايا المبيد بعد سده بإحكام لمدة 5 إلى 7 أيام وتعرضه للهواء لمدة 3 أيام.

الاستخدامات:

المحصول أو النطاق	الآفات	الكمية المطلوبة	طرق الاستخدام
البضائع	الخنائس والسوس الموجودة في البضاعة المخزنة	5 - 10 أقراص / 1000 كجم	التبخير المحكم
الأماكن المفتوحة	آفات متنوعة	1 - 4 أقراص / متر مكعب	التبخير المحكم
الحبوب	الخنائس والسوس وحفارة الحبوب في الحبوب المخزنة	3 - 10 أقراص / 1000 كجم	التبخير المحكم
البذور	الخنائس والسوس في البذور المخزنة	3 - 10 أقراص / 1000 كجم	التبخير المحكم

الضمان: تضمن الشركة المنتجة ثبات المواصفات الكيميائية والفيزيائية لهذا المبيد وسلامة عيراته الأصلية في التخزين العادي طيلة فترة صلاحيته تحت ظروف دولة الإمارات العربية المتحدة وحسب طريقة التخزين المشار إليها.

يقوم المصنع والموزع بإغلاق الحاويات الأصلية بختم الضمان لضمان السلامة والتسليم وفقاً لشروط النشرة. يقوم المستهلك بالشراء هو مع معرفة كاملة. إن الشركة مسؤولة عن استبدال المنتج في حالة وجود خلل به.

طريقة الاستخدام:

The product is made of aluminum phosphide with content ≥56%.
One tablet weights 3g. Tablets will turn into highly toxic and combustible aluminum phosphide when they are exposed to acid or air moisture. The product can be used for preventing and controlling storage pests effectively.

Usage techniques & methods:

1. Bulk Grain: Divide the pesticide into small packages with around 25 tablets each pack, and distribute them evenly with a distance of 1.5 to 2 meters, 20 to 30 centimeters underneath grain surfaces. You may use a probe tube for middle layers.
2. Stack Grain: Divide the pesticide into small packages with around 25 tablets each pack, and distribute them evenly on stack surfaces and middle layers. 2/3 for surfaces and 1/3 for middle layers.
3. Required Amount of Pesticide: Stack amount + Space amount.
4. One can only handle the residue after being sealed for 5 to 7 days, exposed in the air for 3 days.

Uses:

Crop (or scope)	Pests	Rates	Methods of application
Goods	Beetles and Weevils Found in Stored Products	5-10 Tablets / 1000 kg	Sealed fumigation
Space	Various Pests	1-4 Tablets / cubic meter	Sealed fumigation
Grain	Stored Grain Beetles, Weevils and Borer	3-10 Tablets / 1000 kg	Sealed fumigation
Seeds	Stored Seed Beetles and Borer	3-10 Tablets / 1000 kg	Sealed fumigation

Warranty: Our company warrants the quality of the pesticides; provided that it is sold in the original package. Our company is not responsible for any incident that may occur due to incorrect storing, using, and mixing or non-compliance with technical instructions. The manufacturer and distributor guarantee the contents of the original container tightly closed and the warranty seal intact according to the terms of the label and leaflet. Consumers buy the product with full knowledge. The Company limits its liability in the sale of this product to the replacement thereof if it finds defective.

P/Date:
E/Date:
Batch No.:

تاريخ الإنتاج:
تاريخ الانتهاء:
رقم التشغيل:

المبيد مقيد الاستخدام بشدة

ليعبه ولاستخدامه فقط من قبل فنيين مرخصين أو تحت إشرافهم الفني المباشر

VERY RESTRICTED USE PESTICIDE

Strictly for use by highly trained applicator or usage must be under supervision of a licensed personnel

فومافوس أقراص تبخير FUMAPHOS FUMIGATION TABLETS

مبيد حشري تبخير لمنع ومكافحة آفات المخازن

Fumigating Insecticide for preventing and controlling storage pests

نوع التجهيزة ونسبة المواد الفعالة	المحتويات
النسبة المئوية Percentage	المادة الفعالة Active Ingredient
560 g/kg	ألومنيوم فوسفيد Aluminium Phosphide
440 g/kg	المواد الخاملة Inert Ingredients
1000 g/kg	المجموع Total

شديد السمية

Very Toxic



لا يستخدم هذا المبيد في المباني السكنية والشقق

Not for use in residential buildings & flats

المبيد محظور كمبيد صحة عامة

Prohibited as public health insecticide

رقم تسجيل المبيد بوزارة التغير المناخي والبيئة

**MOCCA Registration Number
AUD-AD-140-2012**

الشركة المنتجة
Manufacturing Company
Jining High Technology
Development Zone, Yongfeng
Chemical Plant, Jining City,
Shandong Province, China

الموزع المحلي
Local Distributor

شيوود الشرق الأوسط
SHERWOOD MIDDLE EAST
Abu Dhabi, UAE
Tel.: +971 2 6718812
Fax: +971 2 6718813

Net Content

المحتوى الصافي

1000 g

التحذيرات:

1. Avoid damp, fire and other combustible material. Do not store aluminum phosphide with acid or strong oxidants and avoid direct exposure to the sun. Keep the pesticide storage ventilated.
2. The product is highly toxic, hence make sure you wear a gas mask or canister whiling using it.
3. While using it, please follow strictly the usage standards and procedures.
4. Do not face the bottle mouth towards anyone as you open it. While using the product, please immediately discontinue working and rest in fresh air if you suffer from a headache, nausea, chest distress and etc. If severe, one must be sent to hospital immediately.
5. The density of aluminum phosphide can be tested with a professional gas detector or detector tube.
6. Avoid contact with children, pregnant women, and lactating women.
7. Processing with food or fodder is strictly forbidden.

التسمم والإسعافات الأولية

POISONING & FIRST-AID MEASURES
1. Accidental eating will cause the symptoms of gastrointestinal tract, and fever, headache, dizziness. Measures such as drink enough warm water, emetic, gastric lavage, sending to a nearby hospital can be adopted.
2. Absorbing aluminum phosphide will lead to headache, dizziness, nausea, weakness, chest distress and etc. And the patient must be brought out of the site to somewhere cool, ventilated immediately, and take oral atropine, Vitamin B6, drink glucose water; if severe, must be taken to hospital.

التخزين والشحن

STORAGE & SHIPPING
The product must be stored in cool, dry, ventilated poison storage, away from food, drinks, grain, fodder, oxidant, acid and handled gently during loading and unloading and avoid spilling, and shipped in dangerous goods transport vehicles in clear days.

1. Identification of Product and Supplier**济宁高新技术开发区永丰化工厂**

JINING HIGH TECHNOLOGY DEVELOPMENT ZONE YONGFENG CHEMICAL PLANT

地址：济宁市嘉祥经济开发区坡北路和宏祥路交汇处路南 电话/传真 (Tel/Fax) : (0537)2384567/2351666

Add: South, Pobei Road and Hongxiang Road Intersection Point, Jiaxiang Economic Development Zone,
Jining 272025, Shandong Province, China

Manufacturer : JINING HIGH TECHNOLOGY DEVELOPMENT ZONE
YONGFENG CHEMICAL PLANT

Tel. No.: 235 1666

Active Ingredient: Aluminium Phosphide (metal Phosphide)

Trade name: **Fumaphos Fumigation Tablets**

UN number: 1397

CAS number: 20859-73-8

Product use: For the control of storage pests – use as described on the product label

Document created: January 2024

2. Hazards Identification

Statement of Hazardous Nature: This product is classified hazardous according to Ministry of Climate Change and Environment

GHS Classification:

Substance or mixture which in contact with water emits flammable gas – Category 1

Acute toxicity – Category 2

Hazardous to aquatic environment (acute) – Category 1

Pictograms:



Signal Word:

DANGER

Hazard Statements:

In contact with water releases flammable gases, which may ignite spontaneously

Fatal if swallowed

Fatal if inhaled

Toxic in contact with skin

Very toxic to aquatic life

Human Health Hazard Statements:

Contact with water liberates toxic gas

Contact with acid liberates toxic gas

Precautionary Statements:

Prevention:



Keep away from any possible contact with water, because of violent reaction and possible flash fire
 Wear respiratory protection
 Keep out of reach of children
 Read label before use
 Do not eat, drink or smoke when using this product
 Wear suitable protective clothing and gloves
 Use only outdoors or in a well-ventilated area

Response:

In case of fire: Use DRY AGENT for extinction. DO NOT use water.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Brush off loose particles from skin
 IF ON SKIN: Wash with plenty of soap and water

Storage:

Store in a dry place. Store in a closed container
 Store locked up
 Store in a well-ventilated place. Keep cool.
 Store away from oxidising products

3. Composition/information on ingredients

Ingredient	CAS number	Conc. (%)	TWA (mg/m3)	STEL (mg/m3)
Aluminium Phosphide	20859-73-8	57	not set	not set
Inerts	confidential	43	not set	not set
Phosphine gas	7803-51-2		0.42	1.4

Note: Phosphine gas exposures are equivalent to 0.3 and 1ppm for TWA and STEL respectively.
 This is a commercial product whose exact ratio of components may vary slightly.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8-hour working day for a 5-day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit should never be exceeded (due to the rapid action of the substance). Every g of formulated product yields a third of a g of phosphine gas.

4. First Aid Measures

General Information

If a patient has swallowed Aluminium Phosphide he/she may be emitting toxic phosphine gas. First aid and medical staff should take precautions against exposure to phosphine emitted by the patient. Contact the Poison and Drug Information Center if there is suspicion of poisoning, burning or irritation from this product. This SDS should be at hand when calling.

Inhalation: Immediately call **Poison and Drug Information Center (PDIC)**. Urgent hospital treatment will likely be required. Remove source of contamination or move victim to fresh air. DO NOT administer mouth-to-mouth resuscitation – use other forms of resuscitation. The preferred type is a balloon type resuscitator. DO NOT allow the victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48hrs after exposure.

Skin contact: First remove product with dry cloth and then wash gently and thoroughly with water (use non-abrasive soap if necessary) for 10 minutes or until the chemical is removed. If irritation persists, repeat

flushing and obtain medical advice. If any unusual symptoms become evident, or if in doubt, contact Poisons Information Centre or a doctor. Change contaminated clothing

Eye contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product has been removed, while holding the eyelid(s) open. Obtain medical advice immediately if irritation occurs or unusual symptoms become evident. Take special care if the exposed person is wearing contact lenses.

Ingestion: Rinse mouth thoroughly with water and immediately call **Poison and Drug Information Centre (PDIC)**. Urgent hospital treatment will like be required. DO NOT give mouth-to-mouth resuscitation as the person may be emitting toxic phosphine gas. First aid and medical staff should take precautions against exposure to phosphine emitted by a patient.

5. Fire Fighting Measures

Fire and Explosion Hazards: There is little risk of an explosion from this product if commercial quantities are involved in a fire. However, if water is used as an extinguishing agent, an explosion will be likely. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Medium: Carbon dioxide, dry chemical or lastly, dry sand is recommended. Water MUST NOT be allowed to come into contact with the product since this is likely to result in a dangerous reaction. Ensure that no spillage enters drains or water courses.

Fire Fighting: When fighting fires involving significant quantities of the product, wear a fully encapsulated splash suit complete with self-contained breathing apparatus.

Flash Point: Not detectable

Upper Flammability Limit: No data

Lower Flammability Limit: No data

Flammability: Phosphine concentration above 3% can cause auto-ignition

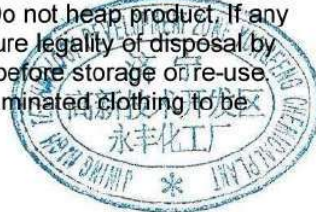
Flammability Class: No data

6. Accidental Release Measures

In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective, chemically resistant clothing including gauntlets and self-contained breathing apparatus. See Section 8 regarding UAE standard relating to personal protective equipment. Suitable materials for protective clothing include rubber and PVC. Eye/face protective equipment should comprise, as a minimum, protective glasses and, preferably, goggles.

In the event of a minor spill, the above precautions should still be implemented, but respiratory protection may be reduced to a full-face respirator fitted with a type "B" gas cartridge (usually this is designated by a grey band).

Because of the toxicity of this product, special personal care should be taken in any clean-up operation. Sweep up and shovel or collect recoverable product into labelled containers and dispose of promptly. Under no circumstances should any drum, which contains Aluminium Phosphide, be sealed since flammable concentrations of Phosphine are likely to develop, which could lead to a spontaneous ignition and subsequent explosion. If large quantities need to be disposed of, consider wet deactivation as outlined in Section 13 below. To dispose of small quantities (no more than about 5kg Aluminium Phosphide), spread the product on the ground in an open and remote area to be degraded by atmospheric moisture. Do not heap product. If any material enters drains, evacuate the area and advise emergency services. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise any laundry services of the nature of contamination when sending contaminated clothing to be laundered.



7. Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimize the quantities kept in work areas. Ensure that measures outlined in Section 8 of this SDS, relating to protective measures, are followed.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this class of poison. Store the product under lock and key in a secure, cool, dry, well-ventilated separate room, building or covered area. Check containers periodically for leaks. Containers should be kept closed to minimize contamination. The relevant authority- Environment Agency (EAD): 800 555 should be contacted about storage obligations

Phosphine is a powerful reducing agent therefore DO NOT store with oxidising agents. Do not store in the same area as water, food or feeds. Do not store in buildings where humans or domestic animals reside. Keep away from sources of ignition and protect from exposure to fire and heat. Separate from incompatible materials as outlined in Section 10.

8. Exposure Controls and Personal Protection

The following Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: DIN EN 141, Type B, code colour grey

Protective gloves: Nitril and Latex gloves tested according to EN- 374-2 and EN374- 3

Industrial clothing: suitable protective clothing according to BGR 189 (ATL: "Rules for the use of protective clothing")

Industrial eye protection: wear safety goggles according to EN 166:2001.

Occupational Protective footwear: BS EN ISO 20346:2014

Exposure Limit: Exposures to phosphine must not exceed the 8-hour Time-Weighted

Average (TWA) of 0.3 ppm or the 15-minute Short-Term Exposure Limit (STEL) of 1.0 ppm phosphine. All persons are covered by these exposure standards.

Ventilation: Handle product in an open space or preferably in a well-ventilated area. Ensure compliance with applicable exposure limits.

Skin Protection: When opening the container or using the product, wear elbow length PVC gloves.

Respirator: Under all normal usage conditions, use respiratory equipment suited to phosphine gas. A full- face mask fitted with a combined dust and gas filter, type "B2P3" cartridge (usually denoted by a grey band) is recommended. A half-face mask, similarly fitted may be used in situations not conflicting label instructions. In the event of an accident, or a spill, use of self-contained breathing apparatus should be considered if large quantities of the product (or phosphine gas) are involved. Safety deluge showers (or running water at a minimum) and eyewash facilities should be provided near to where the product is used.

Eye protection: If the respiratory equipment recommended above is used, no further eye protection is required.

9. Physical and Chemical Properties

Appearance: Grey-green granular powder presented in the form of a tablet.

Odour: Strong characteristic odour similar to garlic, carbide or decaying fish.

Melting Point: 1,000 degrees C

Specific gravity: 2.85

Molecular weight: 57.95

Oxidizing properties: Strong reducing agent



Solubility: Reacts with water yielding phosphine gas

10. Stability and Reactivity

Reactivity: Will react with water (incl. atmospheric water vapour) liberating toxic, flammable Phosphine gas.

Conditions to avoid: Do not store in buildings inhabited by humans or domestic animals. Keep away from water or other liquids. Do not pile up large quantities of the product during fumigation or disposal.

Incompatibles: Water and water-based fluids, acids, oxidizing agents.

Phosphine gas may react with certain metals and cause corrosion, especially at elevated temperature and humidity. Metals such as copper, brass, and other copper alloys, and precious metals such as gold and silver, are susceptible to corrosion by phosphine. Small electric motors, smoke detectors, brass sprinkler heads, batteries and battery chargers, fork lifts, temperature monitoring systems, switching gears, communication devices, computers, calculators and other electrical equipment may be damaged by phosphine gas.

Phosphine will also react with certain metallic salts and therefore sensitive items such as photographic film, some inorganic pigments, etc., should not be exposed to the gas.

Fire decomposition: Small quantities of carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Oxides of phosphorous and other phosphorous compounds. Water, Aluminium compounds.

Nitrogen and nitrogen compounds such as ammonia and nitrogen oxides.

Polymerisation: This product will not undergo polymerisation processes.

11. Toxicological information

Toxicity: A profile for Aluminium Phosphide is available at <http://extoxnet.orst.edu/pips/alumphos.htm>

Acute Toxicity: Aluminium Phosphide is not absorbed through the skin. The main routes of exposure are through ingestion or inhalation. It is highly toxic via both these routes. The reported rodent oral LD50 is 11.5mg/kg for the active ingredient, with that for the technical compound presumably lower. Aluminium Phosphide ingested orally reacts with water and stomach acids to produce phosphine gas, which may account in a large part for the observed toxicity. Very toxic if swallowed or inhaled.

Phosphine generated in the gastrointestinal tract is readily absorbed into the bloodstream. It is also readily absorbed through the lung epithelium. The rodent 4-hour inhalation LC50 for phosphine gas is widely reported as 15mg/m³ (15µg/L, or approximately 10.7ppm). Recent studies indicate that the rodent 4-hour LC50 may exceed 15mg/m³. Symptoms of mild to moderate acute Aluminium Phosphide toxicity include nausea, abdominal pain, and tightness in the chest, excitement, restlessness, agitation and chills.

Symptoms of more severe toxicity include diarrhoea, cyanosis, difficulty breathing, pulmonary oedema, respiratory failure, tachycardia (rapid pulse) and hypotension (low blood pressure), dizziness and/or death. Mild exposure is reversible.

Chronic Toxicity: There is no evidence available that shows cumulative or chronic toxicity symptoms.

Reproductive effects: The available evidence for reproductive effects in animals suggest that reproductive effects are not likely in humans under normal conditions.

Teratogenic Effects: The available evidence for teratogenic effects in animals suggests that such effects are not likely in humans under normal conditions.

Mutagenic Effects: No evidence is available regarding the ability of Aluminium Phosphide or phosphine to cause mutations or increase mutation rate.



Carcinogenic: No evidence available that Aluminium Phosphide or phosphine have any carcinogenic effects.
Organ toxicity: Acute toxicity resulting from Aluminium Phosphide exposure is apparent almost immediately in the heart and lungs. It may also affect the central nervous system, liver and kidneys.

12. Ecological & Environmental Information

Effects on birds: The precise oral or inhalation median lethal doses for aluminum Phosphide or phosphine in birds are not known. It is reported that exposure of turkeys and hens to 211 and 224 mg/meters cubed for 74 and 59 minutes respectively resulted in labored breathing, swelling of organs, tonic-clonic convulsions and death. Due to the mechanism of action it is likely that it could similarly affect other bird species at similar levels of exposure. Fortunately, such exposure is not very likely, as phosphine is rapidly dissipated in open air.

Effects on aquatic species: The reported acute LC50 is 4.1 µg/L in rainbow trout, indicating very high toxicity. No data were available regarding the specific toxicity of aluminum Phosphide or of phosphine to other fish or aquatic species (e.g. LC50 or EC50 values), but due to the mechanism of action it is likely that it will be very highly toxic to them as well. Such exposure is unlikely; aluminum Phosphide will rapidly react to form phosphine gas, which is somewhat soluble in water, but will mainly bubble up into the air.

Effects on other animals (non-target species): No data available.

Breakdown of chemical in Soil and Groundwater: Aluminum Phosphide will breakdown spontaneously in the presence of water to form a gaseous product, and so it is non-persistent and non-mobile in the soil environment, and poses no risk to groundwater. The Phosphine gas will also break down to form phosphates.

Breakdown of chemical in Surface Water: It is highly unlikely that aluminum Phosphide or phosphine will be found in surface waters.

Breakdown of chemical in Vegetation: No data available.

13. Disposal Considerations

Wet deactivation: If available, prepare a 2% solution of low-foam detergent solution (as this will better wet the hydrophobic surface of the Aluminium Phosphide particles); otherwise use available water. A large container should be filled with this solution (or water) to within a few centimetres of the top rim of the container. The Aluminium Phosphide should then be added slowly to the solution and stirred so as to thoroughly wet the Aluminium Phosphide. This should be done in the open air, and respiratory protection should be worn if necessary. No more than one part Aluminium Phosphide should be added to 3 parts of solution. Allow the mixture to stand, with occasional stirring, for about 48 hours. The resultant slurry will then be safe for disposal. Dispose of the deactivated material, with or without preliminary decanting, at a landfill or other suitable site approved by local authorities.

An alternative method is to place the product into a suitable empty vessel, and then, add water from a suitable distance (this may be achieved with a hose). Again, allow to stand for a few days and dispose as indicated above.

Disposal: The product label/leaflet will give general advice regarding disposal of small quantities, as well as on disposal of empty containers. Contact concerned government agencies for proper disposal of hazardous materials.



14. Transport Information**Land transport (ADR/RID)****UN number:** UN1397**UN proper shipping name:** ALUMINIUM PHOSPHIDE**Transport hazard class(es):**4.3+6.1**Packing group:** I

Hazard label: 4.3+6.1

Classification code: WT2

Special Provisions: 507

Limited quantity: 0

Transport category: 1

Tunnel restriction code: E

Other applicable information (land transport)

E0. Mailing: not allowed. Warning board: starting 20 kg net weight

Inland waterways transport**UN number:** UN1397**UN proper shipping name:** ALUMINIUM PHOSPHIDE**Transport hazard class(es):**4.3+6.1**Packing group:** I

Hazard label: 4.3+6.1

Classification code: WT2

Special Provisions: 507 802

Limited quantity: 0

Other applicable information (inland waterways transport) E0

Marine transport**UN number:** UN1397**UN proper shipping name:** ALUMINIUM PHOSPHIDE**Transport hazard class(es):**4.3+6.1**Packing group:** I

Hazard label: 4.3+6.1

Special Provisions: -

Limited quantity: 0

EmS: F-G, S-N

Other applicable information (marine transport)

E0

Air transport**UN/ID number:** UN1397**UN proper shipping name:** ALUMINIUM PHOSPHIDE**Transport hazard class(es):**4.3+6.1**Packing group:** I

Hazard label: 4.3+6.1

Limited quantity Passenger: Forbidden

IATA-packing instructions - Passenger: Forbidden IATA-max. quantity - Passenger: Forbidden

IATA-packing instructions - Cargo: 487

IATA-max. quantity - Cargo: 15 kg

Other applicable information (air transport)

E0

Forbidden



SAFETY DATA SHEET

Product: Fumafhos Fumigation Tablet
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Cargo Aircraft only

Environmental hazards

Dangerous for the environment: yes

15. Regulatory Information

PD84121-20

Institute for the Control of Agrochemicals (ICAMA)

Ministry of Agriculture and Rural Affairs (MARA)

16. Acronyms

CAS Number	Chemical Abstracts Number
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighter
NOHSC	National Occupational Health and Safety Commission
NTP	National Toxicology Program
UN Number	United Nations Number

17. Other Information

Please read all labels carefully before using this product.

This SDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely use and handle the product in the workplace. Each user should read this SDS and consider the information in the context on how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the company.
Our responsibility for products sold is subject to our standard terms and conditions which is made known to our customer and a copy available upon request.

END SDS

