

1 Identification of the preparation and the supplying Company

1.1 Talunex

1.2 Aluminium Phosphide Solid, TB (Tablet). For use only in the control of rabbits, moles and rats outdoors

1.3 Killgerm Chemicals Ltd, Wakefield Road, Ossett, West Yorkshire, WF5 9AJ.

Tel: +44 (0)1924 268450 Fax: (0)1924 265033 Email: technical@killgerm.com

1.4 Emergency telephones. Emergency telephones. For advice on medical emergencies, fires, spillages or chemical hazard only –phone 0870 190 6777.

National Poisons Information Service 0870 600 6266 (for professional medical personnel only), NHS 24 service 111 (for non-professionals), National Poisons Information Centre 01-8092166 (Ireland Only)

Killgerm Chemicals Ltd, 01924 268452 (Office hours)

2 Hazards identification

2.1. Classification of the substance or mixture

According to Regulation (EC) 1272/2008



H311: Toxic in contact with skin. H300: Fatal if swallowed. H330: Fatal if inhaled. H318: Causes serious eye damage. EUH032: Contact with acids liberates very toxic gas.



H260: In contact with water releases flammable gases which may ignite spontaneously. EUH209: Can become highly flammable in use.



H400: Very toxic to aquatic life

According to Directive 1999/45/EC



Highly flammable. Symbol: F. R15/29 Contact with water liberates toxic, extremely flammable gases



Dangerous for the environment. Symbol: N. R50 Very Toxic to aquatic organisms



Very toxic. Symbol: T+. R21 Harmful in contact with skin. R26 Very toxic by inhalation. R28 Very toxic if swallowed. R32 Contact with acids liberates very toxic gas. R36 Irritating to eyes

2.2. Label elements

Use Biocides Safely and Sustainably

It is illegal to use this product for uses or in a manner other than that prescribed on this label
NOT for Amateur Sale

To avoid risks to human health and the environment, comply with the instructions for use
Remove all remains dead rodents after treatment and dispose of safely
Prevent access to product by children , domesticated animals and pets, particularly cats, dogs and pigs

- P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire
- P232: Protect from moisture
- P234: Keep only in original container
- P235: Keep cool
- P260: Do not breathe dust/fume/gas/mist/vapours/spray
- P273: Avoid release to the environment
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P321: Specific treatment (see section 4)
- P335: Brush off loose particles from skin
- P370+378: In case of fire: Use dry sand or powder and then with CO2 for extinction
- P402+404: Store in a dry place. Store in a closed container
- P403: Store in a well-ventilated place
- P405: Store locked up
- P501: Dispose of contents/container in accordance with national regulation

2.3. Other hazard

3 Composition and information on ingredients

3.2. Mixtures

Hazardous Components in Product

Ingredient Name	Classification	Concentration	R Phrases	H Phrases
Aluminium phosphide 20859-73-8	T+, F, N Water-react. 1 Acute Tox. 2 Acute Tox. 3 Aquatic Acute 1	56%w/w	R15/29-21-28-32-50	H260, H300, H311, H330, H319, H400, EUH029, EUH032
Ammonium Carbamate CAS No: 1111-78-0	Acute toxicity, Oral (Category 4)	21%w/w	R36	H302

See section 16 for full text of R-phrases, H phrases .

4 First Aid measures

4.1. Description of first aid measures

Ingestion (swallowing): induce vomiting (not if patient is unconscious) . Take poisoned victim into open air immediately and consult a physician and show the label.

Inhalation: in case of headache, dizziness, feeling of constriction, difficult breathing and

nausea immediately leave the danger zone and seek fresh air; consult a physician; inhale products for an acute treatment following exposition of smoke gas (eg a beclometosone (Ventolair[®]) spray).

Skin contact: remove preparation by brushing; only then use water for cleansing

Eye contact: remove preparation with fluff-free cloth; rinse with plenty of water and apply eye drops only after no more powdery residues are visible.

4.2. Most important symptoms and effects, both acute and delayed: effect result from the inhibition of important enzymes in tissue cells, and in high concentrations causes alternations to blood haemoglobin by formations of methaemoglobin. Poisoning symptoms may include: headaches, dizziness, feeling of constriction, difficult breathing and nausea. Note that poisoning symptoms may develop over the course of several days.

4.3. Indication of any immediate medical attention and special treatment needed: have methyl prednisolon (application by physician) and products for acute treatment following exposure to smoke gas (eg a beclometosone (Ventolair[®]) spray) available.

5 Fire-fighting measures

5.1. Extinguishing media: the product itself does not burn; extinguish fires in the vicinity with dry sand or powder and then with CO₂

5.2. Special hazards arising from the substance or mixture: in case of fires hazardous combustion gases are formed: caustic phosphoric acid aerosols (phosphoric pentoxide)

5.3. Advice for fire-fighters

Wear self-contained respiratory equipment, see para 8 below

6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures: In the event of major spillage evacuate room immediately. Contact an expert immediately (phone emergency number in para 1.4, above). Provide adequate ventilation. Wear suitable protection. Self-contained breathing apparatus with full face shield. Keep away from sources of ignition.

6.2. Environmental precautions: Prevent dispersion. Collect spilled material. Keep it dry. Store in a safe place. Prevent entry to sewers and public waters. Make provisions to collect extinguishing water after fires. In the event of major spillage contact an expert immediately. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up: Prevent dispersion. Clean up the remainder carefully. Do not use water for cleaning. Remove as chemical waste, according to national or local legislation.

6.4. Reference to other sections:

7 Handling and storage

7.1. Precautions for safe handling

Read label before use. Handle, store and use only in accordance with the label, this safety data sheet and training. When using, do not eat, drink or smoke. Wear suitable protective clothing, gloves, eye/face protection. Keep away from water. Keep away from sources of ignition. Keep away from open flame and sparks. Keep under lock and key in such a way that only experts have access to the product.

7.2. Conditions for safe storage, including any incompatibilities: Store in a frost-free, dry, cool, well-ventilated area. Keep in fireproof place. Store according to national or local legislation. Do not store together with other products. Keep away from water and acids. Keep away from ambient humidity. Keep locked up and out of reach of children. Keep away from food, drink and animal feeding stuffs. Follow HSE guidelines on storage.

7.3. Specific end use(s)

For use only as described in paragraph 1.2.

8 Exposure controls and personal protection
8.1. Control parameters

Generated ingredients	EH40, WEL	CAS-No.	Odour threshold
Hydrogen phosphide (Phosphine)	0.1ppm, 0.14mg/m ³ (Long-term exposure) 0.2ppm, 0.28mg/m ³ (Short-term exposure)	7803-51-2	0.02 to 3ppm
Ammonia	25ppm, 18mg/m ³ (Long-term exposure) 35ppm, 25mg/m ³ (Short-term exposure)	7664-41-7	
Carbon dioxide	5000ppm, 9150mg/m ³ (Long-term exposure) 15000ppm, 27400mg/m ³ (Short-term exposure)	124-38-9	

Provide adequate ventilation. When using, do not eat, drink or smoke. Wash hands and other exposed areas with soap and water before leaving work. Shower after work. Wear clean working clothes every day.

8.2. Exposure controls

Where exposure may occur engineering controls should be employed. A risk assessment should be carried out and the following PPE may be appropriate /required

PPE	ITEM IN USE	SPILLAGE
Respirators	In case of insufficient ventilation, wear suitable respiratory equipment e.g. Full Face Mask with B2P3 filter.	Indoors: consult an expert and use breathing apparatus Outdoors: cover in at least 15cm depth of soil
Gloves	Use synthetic rubber gloves.	Use synthetic rubber gloves.
Overall	Wear suitable protective clothing, e.g. disposable, lightweight, washable cotton or blended cotton overalls.	

9 Physical and chemical properties
9.1. General information

Appearance: Grey pellets

Odour: Garlic

pH: Not applicable

Density: 2.3g/cm³

Flammability: gas given off by product extremely flammable

Boiling point/boiling range: phosphine: -87.4 °C

Vapour density: phosphine:1.2 (air=1)

Vapour pressure: no available data

Melting point/freezing point: no available data

Solubility in water: Reacts violently with water (decomposition)

Solubility in other solvents: no available data

Explosive properties: Gas given off by product is explosive Hydrogen Phosphide:LEL 1.8%v/v(1.79-1.89)

Combustibility: Hydrogen phosphide (phosphine is spontaneously combustible at concentrations over 1.8%v/v

Oxidising properties: no available data

Evaporation rate: no available data

Partition coefficient: no available data

Decomposition temp: no available data

Auto-ignition temp: This product contains ignition-inhibiting additives.

10 Stability and reactivity

10.1. Reactivity: Highly reactive when in contact with water or acids, produces extremely flammable and very toxic hydrogen phosphide (phosphide), ammonia and carbon dioxide.

10.2. Chemical stability: Contact with water or acids, produces extremely flammable and very toxic hydrogen phosphide (phosphide), ammonia and Carbon dioxide

10.3. Possibility of hazardous reactions: Reacts violently with water liberating highly flammable gases. Subsequently fire/explosion hazard.

10.4. Conditions to avoid: Open flame. Sparks. Avoid contact with water, acids and ambient humidity

10.5. Incompatible materials: Avoid contact with water and acids as this will cause aluminium phosphide to decompose in a violent reaction into extremely flammable and very toxic hydrogen phosphide.

10.6. Hazardous decomposition products: Burning may produce e.g.: Phosphine. Phosphoric acid. Phosphorus oxides

11 Toxicological information

11.1 Information on toxicological effects

On product: Very toxic if swallowed. No data available

Rat inhalation LC50 [mg/l/4h]: Phosphine: 0.015

Other toxicological information: Contact with water liberates toxic gas: Phosphine

On ingredients: See Heading 3 (Information on Ingredients).

(a) Acute toxicity: Information has been derived from the properties of the individual ingredients.

(b) Corrosivity/Irritation:

(c) Sensitisation: contains no known skin or respiratory sensitizers.

(d) Repeated dose toxicity: The product has not been tested. Repeated exposure to small quantities may affect certain organs.

(e) Mutagenicity/Carcogenicity: Product does not contain any ingredients known to have such effects.

(f) Reproductive toxicity: Product does not contain any components known to have effects on fertility

11.2 Other data: see section 2.3

12 Ecological information

12.1. Toxicity: On product: Very toxic to aquatic organisms

Ecological effects information:

Phosphine decomposes in the atmosphere within 5 – 28 hours.

LC50-96H-Rainbow trout mg/l: Phosphine : 0.0097

EC50-48H-Daphnia Magna mg/l: Phosphine : 0.2

12.2. Persistence and degradability: Phosphine decomposes in the atmosphere within 5-28hours

12.3. Bio accumulative potential: This product is not expected to bio accumulate

12.4. Mobility in soil: no available data

12.5. Results of PBT and vPvB assessment: no available data

12.6. Other adverse effects: None known

13 Disposal considerations

13.1. Waste treatment methods

Waste disposal procedures: Keep dry. Prevent dispersion. Remove waste product to a suitable incinerator. According to national or local legislation.

Waste residues: Fire hazard. Keep waste separate. Remove as chemical waste, according to national or local legislation. Render residues safe by the method described in HSE guidance note:- "Fumigation" HSG251.

Empty packaging: Use all contents of the flasks. Empty flasks can be re-sealed only for transport to waste storage area. Do not store or reseal part used flasks.

Waste treatment methods: All pesticides must be disposed of as hazardous waste. Never wash out empty flasks with water. Once pest control activity has been completed, ensure that all residues of product are removed. Empty the flasks completely at site of use by upending and tapping the flask so that any remaining powder residue is deposited in the treatment burrow or run. Check that the flask is visibly empty. If residue remains, repeat upending and tapping until fully removed. Ensure that the empty flask is kept dry. Tap out any residues from the applicator at the site of use as for the flasks.

Product/packaging disposal: Disposal of waste flasks: Handle and store empty flasks as if they still contained product. Flasks must never be rinsed or cleaned. Screw the cap back onto the empty flask loosely (this action should only be carried out prior to transporting to designated storage area, flasks should NOT be re-capped if they still contain tablets, ensure that all product is used during the pest control treatment), this will help to ensure that any gas generated within the flask during transport from the treatment area is contained. Place the flask into a suitable bag. Label the bag and place the written confirmation that the waste treatment methods have been completed, date and sign. Seal the bag using tie wraps. Once at designated storage area and prior to waste collection, whilst wearing a full-face respirator with appropriate gas filter cartridge (which meets P3 standard for particulates) or SCBA (contact your PPE supplier for advise on suitable PPE and RPE) and whilst wearing suitable gloves and skin protection such as rubber/PVC gloves and coveralls, remove the flask from the sealed bag. Remove caps, taking care and pointing flask away from face and other people, as any generated gas may be present. Invert the flasks on a mesh shelf in a secure caged area until all gas has vented from the flask. We recommend venting the flasks for 48 hours. Once venting is complete, re-cap flask and replace into and seal the plastic bag. Record on the written confirmation that the flasks have been vented. Store in a designated secure storage area until collection by a licensed waste-disposal contractor. The written confirmation should include the name of the waste disposal contractor and the date they were contacted to collect the flask. EWC codes: European Waste Catalogue codes:- Packaging containing residues or contaminated by Talunex – 15 01 10* hazardous waste. Consign using a consignment note for hazardous waste. Redundant Talunex stock, damaged containers, transport casualties – 20 01 19*. Pesticides. Consign using a consignment note for hazardous waste.

14 Transport information

14.1. UN number: UN 1397

14.2. UN proper shipping name: ALUMINIUM PHOSPHIDE, MIXTURE

14.3. Transport hazard class(es) : ADR/RID: Class: 4.3 (6.1) IMDG-Code Class: 4.3 (6.1)

14.4. Packing group: I

14.5. Environmental hazards: Marine pollutant

14.6. Special precautions for user:

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:

Labelling according to Regulation (EC) No 1272/2008

Control of Substances Hazardous to Health Regulations 2002 (as amended).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

- Restricted to professional users. RAMPS . Requires Level 2 Award in Using Aluminium Phosphide Safely for the Management of Vertebrate Pests or CITY & GUILDS NPTC LEVEL 2 AWARD IN THE SAFE USE OF ALUMINIUM PHOSPHIDE FOR VERTEBRATE PEST CONTROL for use.
- Refer to other relevant measures such as the Health and Safety at Work etc Act 1974 and the COSHH regulations and guidance.
- The information contained in this data sheet does not constitute the user's own assessment of workplace risks as required by legislation.

15.2. Chemical safety assessment: Advice on product handling can be found in sections 7 and 8.

16 Other information

This data sheet does not constitute a COSHH assessment.

The information contained within this data sheet is strictly for general guidance only and should not be relied upon over and above this. This data sheet is intended to provide general health and safety guidance on the handling, storage and transportation of the preparation. The information provided in this data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted by Killgerm Chemicals Limited for any loss, injury or damage arising from any failure to comply with the information and advice contained within this data sheet and/or failure to comply with the manufacturer's guidelines, product label data and any associated technical usage literature.

R15/29 Contact with water liberates toxic, extremely flammable gases

R21 Harmful in contact with skin

R28 Very toxic if swallowed

R32 Contact with acids liberates very toxic gas

R50 Very toxic to aquatic organisms

H260: In contact with water releases flammable gases which may ignite spontaneously

H300: Fatal if swallowed

H311: Toxic in contact with skin

H319: Causes serious eye irritation

H330: Fatal if inhaled

H400: Very toxic to aquatic life

EUH029: Contact with water liberates toxic gas

EUH032: Contact with acids liberates very toxic gas

LEGEND:

n.a. = not applicable

n.t. = not tested

n.v. = not available

WEL = Workplace Exposure Limit