

Material Safety Data Sheet

According to Regulation EC No. 1907/2006

Date revised : June 2010

Product : Basamid[®] Granular

Date of print : 30 June 2010

Version : 2

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1. Identification of the Substance/Preparation and of the Company / Undertaking

BASAMID[®] GRANULAR

Synonyms: Basamid, Basamid Granulat.

Use of the substance/preparation: Crop protection product, soil sterilant.

Company identification:

Kanesho Soil Treatment SPRL/BVBA

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2. Hazards identification

Classification: Xn, R22-36/37/38-43; N, R 50-53

The product is classified harmful and dangerous for the environment.

Human health hazards:

Harmful if swallowed, irritating to eyes, respiratory system and skin, may cause sensitization by skin contact.

Environmental hazards:

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition/Information on Ingredients

Chemical nature:

Microgranules (MG)

Hazardous ingredient:

Dazomet	Content (w/w):	97% (nominal)
	IUPAC name :	3,5-dimethyl-1,3,5-thiadiazinane-2-thione-tetrahydro-3,5-dimethyl-1,3,5-thiadiazine-2-thione
	CAS No. :	[533-74-4]
	EINECS No. :	208-576-7
	Index- No. :	613-008-00-X
	Hazard symbols :	Xn, N
	R-phrases) :	22, 36/37/38, 43, 50/53

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

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4. First-aid measures

General Advice:

Avoid contact with the skin, eyes and clothing. Remove contaminated clothing. If difficulties occur: obtain medical attention. Show container, label and/or safety data sheet to Doctor.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water. If irritation develops, seek medical attention.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Note to physician:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-fighting measures

Suitable extinguishing media:

Water fog, foam, dry extinguishing media.

Specific hazards:

Carbon monoxide, sulphur oxides, nitrogen oxides.

The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment for fire-fighters:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately; do not allow reaching sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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6. Accidental release measures

Personal precautions:

Avoid dust formation. Wear goggles, rubber gloves, mouth-and-nose-mask and protective clothing during clean-up operations. Bystanders are requested to leave the emergency site.

Environmental precautions:

Do not discharge into drains/surface water/groundwater. Do not discharge into subsoil/soil.

Methods for cleaning up:

Collect with broom and shovel or preferably vacuum cleaner. Use damp cloth to clean floors and other objects after removal of the product and/or contaminated adsorbent. Adding a detergent will enhance the cleaning process.

Avoid raising dust. Cleaning operations should be carried out while wearing breathing apparatus. Place recovered material, contaminated adsorbent and used cleaning materials into closeable receptacles. Dispose of material in accordance with regulations.

7. Handling and storage

Handling:

Protect against moisture. Avoid dust formation. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Avoid dust formation. Avoid deposition of dust. Dust can form an explosive mixture with air. Prevent electrostatic charge. Sources of ignition are kept clear. Fire extinguishers should be kept handy.

Storage:

Segregate in original container under usual warehouse conditions, i.e. dry and frost-free avoiding temperatures above 40°C. Good ventilation is required. Store out of reach of unauthorised persons. Keep away from food, feed and consumable items. Protect against moisture. Keep the product away from sources of ignition. Keep away from heat and direct sunlight.

Change in the properties of the product may occur if substance/product is stored above 40°C for extended periods of time.

Storage stability:

Storage duration: 24 months.

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8. Exposure controls/Personal protection

Exposure limit values:

ACGIH TLV not established for the product

Exposure controls:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Avoid contact with the skin, eyes and clothing. Remove contaminated clothing. Store work clothing separately. Keep away from food, drink and animal feeding stuffs. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift.

Occupational exposure controls:

Respiratory protection:

Wear respiratory protection. Particle filter EN 143 Type A1P2, medium efficiency, (solid and liquid particles of harmful substances).

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other.

Eye protection:

Tightly fitting safety goggles (splash goggles) (EN 166).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suits (according to EN 14605).

9. Physical and chemical properties

General information:

Form	Micro granules (MG)
Colour	White
Odour	Moderate fishy odour

Important health, safety and environmental information:

pH value	7.2 (as a 1% watery dispersion)
Boiling point	Decomposition before boiling (active substance)
Melting range	103.2 to 105.2°C (active substance)
Flash point	Not applicable
Flammability	Not highly flammable
Ignition temperature	Not auto-flammable
Explosive properties	Non explosive
Oxidizing properties	Oxidizing properties not expected
Vapour pressure	1.1×10^{-3} Pa (20°C) (active substance)

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Relative density	1.34 g/cm ³ (20°C)
Bulk density	0.678 kg/L
Solubility in water	3.5 + 0.04 g/L (20°C) (active substance)
Partition coefficient: n-octanol/water	Log Pow = 0.63 (active substance)
Viscosity	Not applicable
Vapour density	Not applicable
Evaporation rate	Not applicable

10. Stability and reactivity

Conditions to avoid: Avoid moisture.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Materials to avoid: water.

Hazardous reactions: The substance itself is not considered to be an explosive due to its chemical composition. The potential for dust explosion hazard was not evaluated but is mentioned as a precautionary measure. Contact with water or moisture liberates toxic gases.

Hazardous decomposition products: methyl isothiocyanate is formed as a result of decomposition of dazomet caused by moisture. Methyl isothiocyanate is irritant to eyes and can cause skin sensitisation and irritation.

11. Toxicological information

Acute effects:

LD ₅₀ Oral (rat):	519 mg/kg
LD ₅₀ Inhalation (rat):	8.4 mg/L (4h)
LD ₅₀ Dermal (rat):	> 2000 mg/kg
Skin irritation (rabbit):	Non-irritant
Eye irritation (rabbit):	Non-irritant
Skin sensitization (guinea pig):	Skin sensitizing effects not observed in animal studies.

Chronic effects:

Carcinogenicity:	Not carcinogenic
Mutagenicity:	Not mutagenic
Teratogenicity:	Not teratogenic

Additional information.:

The data on toxicology refer to the active ingredient. Misuse can be harmful to health.

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12. Ecological information

Ecotoxicity:

Fish- <i>Oncorhynchus mykiss</i> :	4.64 mg/L ≤ LC ₅₀ (96h) ≤ 10 mg/L
Aquatic invertebrates - <i>Daphnia magna</i> :	EC ₅₀ (48h) = 0.427 mg/L
Aquatic plants - <i>Scenedesmus subspicatus</i> :	EC ₅₀ (96h) = 1.015 mg/L
Honey bee:	No exposure expected due to specific application of the product according to the label
Earthworm:	14-d LC ₅₀ = 6.7 mg/kg
Birds:	No exposure expected due to specific application of the product according to the label
Activated sludge respiration inhibition:	EC ₂₀ = 17 mg/L EC ₅₀ = 160 mg/L

Mobility:

Known or predicted distribution to environmental compartments:	Non acceptable leaching to the groundwater level.
Surface tension:	69.9 mN/M at 20°C (1.0 % w/w)
Adsorption /desorption:	K _{OC} (dazomet) = 2630 ml/g

Persistence and degradability:

DT ₅₀ soil (dazomet):	< 2 days (laboratory and field studies)
DT ₅₀ water/sediment (dazomet):	< 0.5 days
Biodegradability:	Not easily biodegradable (by OECD criteria)
Bioaccumulation potential:	Low, Log Pow = 0.63

Additional information:

Other ecotoxicological advice: Do not discharge product into the environment without control.

13. Disposal considerations

The product and the contaminated packages must be dumped or incinerated in accordance with local regulations.

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14. Transport Information

Land transport:

ADR	Class:	9
	Packing group:	III
	UN-number:	3077
	Proper shipping name:	Environmentally hazardous substance, solid, N.O.S. (contains Dazomet 97%)
RID	Class:	9
	Packing group:	III
	UN-number:	3077
	Proper shipping name:	Environmentally hazardous substance, solid, N.O.S. (contains Dazomet 97%)

Inland waterway transport:

ADNR	Class:	9
	Packing group:	III
	UN-number:	3077
	Proper shipping name:	Environmentally hazardous substance, solid, N.O.S. (contains Dazomet 97%)

Sea transport:

IMDG/GGVSee	Class:	9
	Packing group:	III
	UN-number:	3077
	Marine pollutant:	Yes
	Proper shipping name:	Environmentally hazardous substance, solid, N.O.S. (contains Dazomet 97%)

Air transport:

ICAO/IATA	Class:	9
	Packing group:	III
	UN-number:	3077
	Proper shipping name:	Environmentally hazardous substance, solid, N.O.S. (contains Dazomet 97%)

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15. Regulatory Information

Classification and labelling according to Directives 67/548/EEC and 1999/45/EC:

Hazard symbols

Xn Harmful
N Dangerous for the environment

R-phrases

R22 Harmful if swallowed
R36/37/38 Irritating to eyes, respiratory system and skin
R43 May cause sensitization by skin contact
R50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

S-phrases

S2 Keep out of the reach of children
S13 Keep away from food, drink and animal feeding stuffs
S20/21 When using do not eat, drink or smoke
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S35 This material and its container must be disposed of in a safe way
S36/37 Wear suitable protective clothing and gloves
S42 During fumigation/spraying wear suitable respiratory equipment
S46 If swallowed, seek medical advice immediately and show this container or label
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Hazard determinant component(s) for labelling : Dazomet

For the user of this plant protective product applies: to avoid risks to man and the environment, comply with the instructions for use. (Directive 1999/45/EC, Article 10, No. 1.2.)

16. Other Information

Full text of hazard symbols and R-phrases if mentioned as hazardous components in chapter 3:

Xn Harmful
N Dangerous for the environment
22 Harmful if swallowed
36/37/38 Irritating to eyes, respiratory system and skin
43 May cause sensitization by skin contact
50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment

Kanesho Soil Treatment SPRL/BVBA

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MSDS version 2 of date: June 2010. This version replaces the version 1 of June 2007.

The reason for updating is: adaptation of MSDS format in compliance with Regulation (EC) No. 1907/2006, Annex II (REACH).

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.