

- 7) DO NOT apply within 3-4 feet of growing plants or closer than the drip line of trees and large shrubs.

SITE SPECIFIC INFORMATION

Turf Sites - Establishment or Renovation

Basamid G can be used for new construction or renovation of existing turf sites: golf courses (fairways, tees, greens), athletic fields, sod farms, or lawns. Site preparation prior to applying Basamid G on such sites may differ depending on the type of turf, i.e. cool season vs. warm season grasses.

- 1) Cool Season Grass – Typically a renovation of a turf site to kill the existing grasses and weed seeds in the soil profile, without disturbing the soil. The area must be mowed to the lowest cutting height possible (1/8-inch or less). Then core aerated in several directions to allow movement of the product into the targeted soil profile (generally 6-8 inches). Cores must be removed and the area cleaned of debris. Verticutting may be necessary if water infiltration will be inhibited by a thatch layer.
- 2) Warm Season Grass - Most warm season turf situations involve the removal, or mechanical incorporation, of a thatch layer consisting of rhizomes and/or stolons. Under these conditions, two to three applications of a broad spectrum herbicide, such as glyphosate, prior to disturbing the soil is generally beneficial.

In both turf situations, follow the instructions in **Preparation Prior to Application** and apply the specified rate (see **Table 1 – Basamid G Application Rates**) using a drop-type spreader. Incorporate and seal the soil surface by following the instruction in **“Water Requirements”** in the **“Good Agricultural Practices (GAPs)”** section of the label. Prior to seeding, sodding, or sprigging follow the instructions in **Preparation Prior to Planting**. For additional information contact your AMVAC representative.

Greenhouses and Hoop Houses

Basamid G can be used for fumigation in greenhouses and hoop houses. Observe all **Personal Protective Equipment (PPE)** requirements for use in greenhouses and other enclosed areas. During the application keep all doors, vents, and windows to the outside open, and keep all fans or mechanical ventilation systems running within the greenhouse. Before applying Basamid G soil fumigant in greenhouses, nursery boxes, etc., all plants and living plant materials must be removed. Leaks through which gases could penetrate into adjacent rooms or greenhouses filled with plants must be sealed. Various ornamentals (e.g., *Ficus* sp., *Hydrangea macrophylla*, *Asparagus plumosus*) are very sensitive to trace amounts of MITC. Follow instructions in **Preparation Prior to Application**. Select the appropriate application rate (see **Table 1 – Basamid G Application Rates**) and methodology as outlined in **Methods of Application**. Following fumigation, and before turning off the heat in a greenhouse closing for the winter, a germination test must be performed to ensure that MITC has completely degraded. Failing to eliminate all the gases from the soil may delay spring planting or cause plant loss. Prior to seeding or transplanting follow the instructions in **Preparation Prior to Planting**.

Requirements for Pre-Plant Greenhouse and Hoop House Soil Fumigations: The maximum application block size that can be treated is 50,000 square feet.

Soil Media

Basamid G can be used for disinfestation of soil media, such as potting soils, soil heaps, or compost piles. Mechanically incorporate the specified amount of product (see **Table 1 – Basamid G Application Rates**) per cubic yard of substrate. Soil moisture should be maintained at 60-80% available water capacity for sand, 50% for loam, and 30-40% for clay soils. The soil temperature must be above 43° F (6° C) and remain at least this high during the entire fumigation period. Commercial soil preparation setups, such as conveyors or cement-type mixers, have proved suitable. Any suitable alternative for mixing this product with the soil is acceptable. Following are two examples of acceptable methods:

Layering

- 1) Spread moist soil on a solid surface, if possible on a polyethylene sheet.
- 2) Each soil layer should be 8-10" deep.
- 3) The required amount of Basamid G is spread on each soil layer and thoroughly incorporated with a rotary tiller.

Bulk

- 1) Mix moist soil on a solid surface, if possible on a polyethylene sheet.
- 2) Using a front loader, or equivalent, thoroughly mix the required amount of Basamid G with a measured volume of soil by repeated turning of the soil pile.
- 3) Repeat the procedure until all the untreated soil has been blended.

Treated soil can be heaped up to 1 yard high (36 inches). To seal the surface and reduce gas escape, covering the soil heap with a plastic tarp is highly recommended. Leave the pile covered for a minimum of 7 days, then remove the cover and leave undisturbed for an additional 7 days to allow residual gas to dissipate. Prior to use, follow the guidelines in **Preparation Prior to Planting** and utilize the **Safety Germination Test**.

Interplanting

For soil treatment prior to interplanting in existing orchards, berry fields, and similar areas, thoroughly till a spot large enough to accommodate the root system of the plant. Root systems of nearby existing plants must be completely severed to avoid contact with the treated soil. Soil may be treated in place based on the area and depth tilled using the instructions in **Method of Application - Physical Incorporation for Combined Disease, Nematode, and Weed Control**. The soil may be removed and treated in a pile (see **Soil Media**). Tarping of the soil surface may provide better results under some conditions. **Do not** harvest produce within one year of application.

Buffer Zone Requirements

A buffer zone must be established for every fumigant application. The following describes the general buffer zone requirements:

- The buffer zone must extend outward from the edge of the application block perimeter equally in all directions.
- All non-handlers, including field workers, residents, pedestrians, and other bystanders, must be excluded from the buffer zone during the buffer zone period except for transit (see *Buffer Zone Exemptions for Transit on Roadways*).
 - Local, state, or federal officials performing inspection, sampling, or other similar official duties are not excluded from the application block or the buffer zone by this labeling. The certified applicator supervising the application and the owner of the establishment where the application is taking place are not authorized to, or responsible for, excluding those officials from the application block or the buffer zone.
- The buffer zone period begins at the start of the application and lasts for a minimum of 48-hours after the application is complete.

Buffer zone proximity

- Before the start of application, the certified applicator must determine whether their buffer zone will overlap with any other dazomet (or other MITC generating pesticide) buffer zone(s).
- To reduce the potential for off-site movement from multiple fumigated fields, buffer zones from multiple dazomet (or other MITC generating pesticide) application blocks must not overlap UNLESS:
 1. A minimum of 12 hours have elapsed from the time the earlier application(s) is complete until the start of the later application, and
 2. *Fumigant Site Monitoring* or *Response Information for Neighbors* have been implemented if there are any residences or businesses within 300 feet of any of the buffer zones.

Structures under the control of the owner of the application block

- Buffer zones must not include buildings used for storage (e.g., sheds, barns, garages), UNLESS:
 - The storage buildings are not occupied during the buffer zone period, and
 - The storage buildings do not share a common wall with an occupied structure.

Areas not under the control of the owner of the application block

- Buffer zones must not include residential areas (e.g., employee housing, private property), buildings (e.g., commercial, industrial), outdoor residential areas (e.g., lawns, gardens, play areas) and other areas that people may occupy, UNLESS:
 1. The occupants provide written agreement, prior to the start of the application, that they will voluntarily vacate the buffer zone during the entire buffer zone period, and
 2. Reentry by occupants and other non-handlers must not occur until,
 - The buffer zone period has ended, and

- Sensory irritation is not experienced upon re-entry.
- Buffer zones must not include agricultural areas owned and/or operated by persons other than the owner of the application block, UNLESS:
 1. The owner of the application block can ensure that the buffer zone will not overlap with a dazomet (or other MITC generating pesticide) buffer zone from any other property owners, except as provided in the *Buffer Zone Proximity* section, and
 2. The owner of the other property provides written agreement to the applicator that they, their employees, and other persons will stay out of the buffer zone during the entire buffer zone period.
- Buffer zones must not include roadways and rights of way UNLESS:
 1. The area is not occupied during the buffer zone period, and
 2. Entry by non-handlers is prohibited during the buffer zone period.

Buffer Zone Exemptions for Transit on Roadways

Vehicular and bicycle traffic on public and private roadways through the buffer zone is permitted. (NOTE: Buffer zones are not permitted to include bus stops or other locations where persons wait for public transit.)

- For all other publicly owned and/or operated areas such as parks, sidewalks, permanent walking paths, playgrounds, and athletic fields, buffer zones must not include these areas UNLESS:
 1. The area is not occupied during the buffer zone period,
 2. Entry by non-handlers is prohibited during the buffer zone period, and
 3. Written permission to include the public area in the buffer zone is granted by the appropriate state and/or local authorities responsible for management and operation of the area.

Certified applicators must comply with all local laws and regulations.

See the *Posting* section for additional requirements that may apply.

Buffer Zone Distances

Buffer zone distances must be calculated using the application rate and the size of the application block.

Buffer zone distances

- Buffer zone distances must be based on look-up tables in this labeling (25 feet is the minimum distance regardless of site-specific application parameters).
- If after applying all applicable buffer zone credits the buffer zone is greater than ½ mile (2,640 ft), then the application is prohibited.
- Tables 1-4 must be used to determine the minimum buffer distances. Round up to the nearest rate and block size, where applicable. Applications are prohibited for rates or block sizes that exceed what is presented in the buffer zone tables.

Buffer Zone Tables

Table 1: Buffer zone distances (in feet) for mechanically incorporated dazomet soil applications

except golf course fairways and greenhouses

Application Rate (lbs. product/A)	Block Size (acres)													
	40	30	20	15	10	9	8	7	6	5	4	3	2	1 or less
421	864	692	520	400	280	256	232	208	184	160	150	140	120	110
396	770	605	440	343	247	230	210	190	170	150	135	117	100	75
386	750	588	426	333	240	222	204	186	168	147	130	113	96	72
376	730	571	412	323	233	215	197	179	161	144	127	110	92	69
366	710	554	398	312	227	210	193	176	159	141	123	106	88	66
356	690	537	384	302	220	204	188	172	156	138	120	102	84	63
347	670	520	370	292	213	198	182	166	151	135	117	99	80	60
337	650	503	356	281	207	192	177	162	147	132	113	95	76	57
327	630	487	343	271	200	186	171	157	143	128	109	91	72	54
317	610	470	330	261	193	180	167	153	139	124	105	87	68	51
307	590	454	317	251	186	173	160	147	134	120	101	82	64	48
297	565	435	305	242	179	167	155	142	129	116	97	78	60	45
287	545	417	288	229	171	159	147	135	123	112	93	75	56	42
277	524	400	275	219	164	153	142	131	119	108	89	70	52	39
267	505	383	260	208	156	146	136	125	115	104	85	66	48	36
262	500	375	250	200	150	140	130	120	110	100	82	64	44	33
257	490	368	245	193	141	130	119	110	99	89	72	56	40	30
248	471	353	234	182	130	120	109	99	89	78	64	50	36	25
238	452	338	223	171	119	109	98	89	78	67	55	43	32	25
228	433	323	212	160	108	99	88	78	67	56	47	38	28	25
218	414	308	201	149	97	89	78	68	57	45	39	32	25	25
208	395	293	190	138	86	76	65	54	44	34	31	29	25	25
198	375	281	187	133	79	68	57	46	38	25	25	25	25	25
188	357	268	179	128	76	65	55	44	35	25	25	25	25	25
178	339	255	171	122	74	63	53	43	34	25	25	25	25	25
168	321	242	163	117	71	61	51	42	33	25	25	25	25	25
158	303	229	154	111	68	59	49	41	32	25	25	25	25	25
149	285	215	145	105	65	56	47	39	31	25	25	25	25	25
139	267	202	136	99	62	54	45	38	31	25	25	25	25	25
131	250	188	125	92	58	51	44	37	30	25	25	25	25	25
129	250	188	125	92	58	49	41	35	30	25	25	25	25	25
119	218	164	110	82	53	45	38	33	29	25	25	25	25	25
109	186	141	95	72	48	41	35	31	28	25	25	25	25	25
99	154	117	80	62	43	38	33	30	28	25	25	25	25	25
89	122	94	65	52	38	34	30	28	27	25	25	25	25	25
79	90	70	50	42	33	31	28	27	26	25	25	25	25	25
69	58	47	35	32	28	28	27	26	26	25	25	25	25	25
65	25	25	25	25	25	25	25	25	25	25	25	25	25	25

Table 2: Buffer zone distances (in feet) for water incorporated (surface) dazomet soil applications except greenhouses

Application Rate (lbs. product/A)	Block size (acres)													
	40	30	20	15	10	9	8	7	6	5	4	3	2	1 or less
262	675	560	450	420	390	360	330	300	270	240	176	112	47	35
257	669	546	429	400	371	342	313	284	255	223	164	105	45	34
248	663	532	408	379	350	321	292	263	234	206	152	98	42	34
238	657	518	387	359	331	303	275	247	219	189	140	91	41	33
228	651	504	366	338	310	282	254	226	198	172	128	84	39	32
218	645	490	345	318	291	264	237	210	183	155	116	77	38	31
208	639	477	323	297	271	245	219	193	167	138	104	70	36	31
198	630	465	300	274	248	222	196	170	144	120	91	62	35	31
188	576	425	275	248	221	197	172	151	127	106	82	57	33	29
178	522	385	250	222	194	172	148	132	110	92	73	51	32	28
168	467	345	225	196	167	147	124	113	93	78	64	46	29	27
158	414	305	200	170	140	122	100	94	76	64	55	40	28	27
149	360	265	175	144	113	97	76	75	59	50	46	35	27	26
139	306	225	150	118	86	72	52	56	42	36	37	30	26	26
131	250	188	125	92	58	51	44	38	31	25	25	25	25	25
129	250	188	125	92	58	51	44	38	31	25	25	25	25	25
119	218	164	110	82	53	47	41	35	30	25	25	25	25	25
109	186	141	95	72	48	43	38	34	29	25	25	25	25	25
99	154	117	80	62	43	41	38	33	29	25	25	25	25	25
89	122	94	65	52	38	36	33	30	27	25	25	25	25	25
79	90	70	50	42	33	31	29	28	26	25	25	25	25	25
69	58	47	35	32	28	27	27	26	26	25	25	25	25	25
65	25	25	25	25	25	25	25	25	25	25	25	25	25	25

Table 3: Buffer zone distances (in feet) for dazomet greenhouse applications

Block Size	5000 square feet	10000 square feet	15000 square feet	20000 square feet	25000 square feet	30000 square feet	35000 square feet	40000 square feet	45000 square feet	50000 square feet
262 lbs. product/A	240	360	450	540	630	720	810	855	900	1140
198 lbs. product/A	180	300	330	450	540	570	650	720	760	810
131 lbs. product/A	120	210	270	330	390	450	540	585	600	630
65 lbs. product/A	45	90	110	170	210	240	270	300	330	360

Table 4: Buffer zone distances (in feet) for mechanically incorporated dazomet applications to golf course fairways*

Application Rate (lbs. product/A)	Block size (acres)				
	5	4	3	2	1 or less
525	25	25	25	25	25
396	25	25	25	25	25
386	25	25	25	25	25
376	25	25	25	25	25
366	25	25	25	25	25
356	25	25	25	25	25
347	25	25	25	25	25
337	25	25	25	25	25
327	25	25	25	25	25
317	25	25	25	25	25
307	25	25	25	25	25
297	25	25	25	25	25
287	25	25	25	25	25
277	25	25	25	25	25
267	25	25	25	25	25
262	25	25	25	25	25
257	25	25	25	25	25
248	25	25	25	25	25
238	25	25	25	25	25

*This buffer table may only be used if the length of the application area is at least twice the distance of the width (i.e., the length is 80 feet and the width is no greater than 40 feet). If the application area does not meet these requirements, use the buffer zone distances in Table 1.

Buffer Zone Credits

The buffer zone distances for Basamid G applications may be reduced by the percentages listed below. Credits may be added, but credits cannot exceed 80%. Also the minimum buffer zone distance is 25 feet regardless of buffer zone credits available.

- 10% reduction in buffer zone distance, IF the organic content of the soil in the application block is ≥ 1% - 2%; a 20% reduction in buffer zone distance, IF the organic content of the soil in the application block is >2% - 3%; and a 30% reduction in the buffer zone distance, IF the organic content of the soil in the application block is >3%.
- 10% reduction in buffer zone distance, IF the soil temperature is measured to be 50°F or less. Record temperature measurements at the application depth or 12 inches, whichever is shallower.
- 10% reduction in the buffer zone distance, IF the clay content of the soil in the application block is greater than 27%.

Examples of Buffer Calculation if a Credit(s) is Applicable

If the buffer zone is 50 feet and the application qualifies for a buffer zone reduction credit since the soil organic content is 1.5%, then the buffer zone can be reduced by 10%, i.e., reduced by 5 feet based on the following calculation: 50 feet – (50 feet x 10%) = 45 feet.

If the buffer zone is 50 feet and the application qualifies for two buffer zone credits since the soil organic content is 1.5% and the clay content is greater than 27%, then the buffer zone can be reduced by 20% (10% organic content credit + 10% clay content credit), i.e., reduced by 10 feet based on the following calculation: 50 feet - (50 feet x 20%) = 40 feet.

Posting Fumigant Buffer Zones

- Posting of a **buffer zone** is required unless there is a physical barrier that prevents bystander access to the buffer zone.
- Buffer Zone signs must be placed along or outside the perimeter of the buffer zone, at all usual points of entry and along likely routes of approach from areas where people not under the owner's control may approach the buffer zone.
 - Some examples of points of entry include, but are not limited to, roadways, sidewalks, paths, and bike trails.
 - Some examples of likely routes of approach include, but are not limited to, the area between a buffer zone and a roadway, or the area between a buffer zone and a housing development.
 - When posting, the certified applicator supervising the application must ensure compliance with all local laws and regulations.
- Buffer Zone signs must meet the following criteria:
 - The printed side of the sign must face away from the application block toward areas from which people could approach.
 - Signs must remain legible during the entire posting period and must meet the general standards outlined in the WPS for sign size, text size, and legibility (see 40 CFR §170.120).
 - Signs must be posted no sooner than 24 hours prior to the start of the application and remain posted until the buffer zone period has expired.
 - Signs must be removed within 3 days after the end of the buffer zone period.
 - Buffer Zone signs which meet the criteria above will be provided at points of sale for applicators to use. Templates may be downloaded from http://www.epa.gov/pesticides/reregistration/soil_fumigants/.
 - The Buffer Zone signs must contain the following information:
 - The 'Do Not Walk' symbol
 - DO NOT ENTER/NO ENTREE,
 - Dazomet Basamid G Fumigant BUFFER ZONE,
 - Contact information for the certified applicator in charge of the fumigation.

Exception: If multiple contiguous blocks are fumigated within a 14-day period, the entire periphery of the contiguous blocks' buffer zones may be posted. Buffer Zone signs must be posted no sooner than 24-hours prior to the start of the first application. The signs must remain posted until the last buffer zone period expires and signs must be removed within 3-days after the buffer zone period for the last block has expired.

Restrictions for Difficult to Evacuate Sites

Difficult to evacuate sites are pre-K to grade 12 schools, state licensed daycare centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons:

- No fumigant application with a buffer zone greater than 300 feet is permitted within 1/4 mile (1320 feet) of difficult to evacuate sites unless the site is not occupied by children from state-licensed day care centers, students (pre-K to grade 12), patients, or prisoners during the application and the 36-hour period following the end of the application.
- No fumigant application with a buffer zone of 300 feet or less is permitted within 1/8 mile (660 feet) of difficult to evacuate sites unless the site is not occupied by children from state-licensed day care centers, students (pre-K to grade 12), patients, or prisoners during the application and the 36-hour period following the end of the application.

Emergency Preparedness and Response Measures

If the buffer zone is 25 feet, then the *Emergency Preparedness and Response Measures* are not applicable.

Triggers for Emergency Preparedness and Response Measures:

The certified applicator must either follow the directions under the *Fumigant Site Monitoring* section or follow the directions under the *Response Information for Neighbors* section if:

- the buffer zone is greater than **25 feet** but less than or equal to **100 feet**, and there are residences or businesses within **50 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **100 feet** but less than or equal to **200 feet**, and there are residences or businesses within **100 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **200 feet** but less than or equal to **300 feet**, and there are residences or businesses within **200 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **300 feet** or the **buffer zones overlap**, and there are residences or businesses within **300 feet** from the outer edge of the buffer zone.

Fumigant Site Monitoring

NOTE: *Fumigant Site Monitoring* is ONLY required if the *Emergency Preparedness and Response Measures* are triggered AND directions from the *Response Information for Neighbors* section are not followed.

From the beginning of the application until the buffer zone period expires, a certified applicator or handler(s) under his/her supervision must:

- Monitor for sensory irritation in areas between the buffer zone outer perimeter and residences and businesses that trigger this requirement.
- Monitoring for sensory irritation must begin the evening on the day of application and continue until the buffer zone period expires. Monitor a minimum of 8 times during the buffer zone period, including these periods:
 - 1 hour before sunset,
 - during the night,
 - 1 hour after sunrise, and
 - during daylight hours.

Implement the emergency response plan immediately if a handler monitoring experiences sensory irritation.

Response Information for Neighbors

NOTE: *Response Information for Neighbors* is ONLY required if the *Emergency Preparedness and Response Measures* are triggered AND directions from the *Fumigant Site Monitoring* section are not followed.

The certified applicator supervising the application must ensure that residences and businesses that trigger the requirement have been provided the emergency response information at least **1 week** before the application starts. The information provided may include application dates that range for no more than **4 weeks**. If the application does not occur when specified, the information must be delivered again.

Information that must be included:

- The location of the application block.
- Fumigant(s) applied including the active ingredient, name of the fumigant product(s), and the EPA Registration number
- Contact information for the applicator and property owner
- Time period in which the application is planned to take place (must not range more than 4 weeks).
- Early signs and symptoms of exposure to the fumigant(s) applied, what to do, and who to call if you believe you are being exposed (911 in most cases)
- How to find additional information about fumigants.

The method used to share the response information for neighbors can be accomplished through mailings, door hangers, or other methods that will effectively inform the residences and businesses within the required distance from the edge of the buffer zone.

Notice to State and Tribal Lead Agencies

If your state and/or tribal lead agency requires notice, information must be provided to the appropriate state or tribal lead agency prior to the application. Please refer to www.epa.gov/fumigantstatenotice for a list of states and tribal lead agencies that require notice and information on how to submit the information.

The information that must be provided to state and tribal lead agencies includes the following:

- Location of the application blocks,
- Fumigant(s) applied including EPA registration number,
- Applicator and property owner/operator contact information, and
- Time period that fumigation may occur.

Emergency Response Plan

The certified applicator must include in the FMP a written emergency response plan that identifies:

- evacuation routes,
- locations of telephones,
- contact information for first responders and local/state/federal/tribal personnel, and
- emergency procedures/responsibilities (e.g., adding water to the field, repairing tarps, fixing equipment, evacuating upwind) if:
 - o there is an incident,
 - o sensory irritation is experienced outside of the buffer zone, and/or there are equipment/tarp/seal failure or complaints, or other emergencies

Site-Specific Fumigation Management Plan (FMP)

Prior to the start of application, the certified applicator supervising the application must verify that a site-specific FMP exists for each application block. In addition, an agricultural operation fumigating multiple application blocks may format the FMP in a manner whereby all of the information that is common to all the application blocks is captured once, and any information unique to a particular application block or blocks is captured in subsequent sections.

The FMP must be prepared by the certified applicator, the site owner, registrant, or other party.

The certified applicator must verify in writing (sign and date) that the site-specific FMP(s) reflects current site conditions before the start of application.

Each site specific FMP must contain the following elements:

- ❖ Certified Applicator Supervising the Application
 - Name,
 - Phone number,
 - Pesticide applicator license and/or certificate number,
 - Specify if commercial or private applicator,
 - Employer name,
 - Employer address, and
 - Date and location of completing EPA approved soil fumigant training program.
- ❖ General site information
 - Application block location (e.g., county, township-range-section quadrant), address, or global positioning system (GPS) coordinates
 - Name, address, and phone number of application block owner
 - Site map, aerial photo, or detailed sketch showing:
 - application block location
 - application block dimensions
 - buffer zone dimensions
 - property lines
 - roadways
 - rights-of-ways

- sidewalks
- permanent walking paths
- bus stops
- nearby application blocks
- surrounding structures (occupied and non-occupied)
- locations of Buffer Zone signs, and
- locations of difficult to evacuate sites within ¼ mile of the application block if the buffer zone is greater than 300 feet, or 1/8 mile if the buffer zone is 300 feet or less.
- comments
- ❖ General application information
 - Target application date/window,
 - Fumigant Product Name, and
 - EPA registration number.
- ❖ Tarp Plan (if tarp is used)
 - Schedule for checking tarps for damage, tears, and other problems,
 - Minimum size of damage that will be repaired,
 - Factors used to determine when tarp repair will be conducted,
 - Equipment/methods used to perforate tarps,
 - Target dates for perforating tarps, and
 - Target dates for removing tarps.
- ❖ Soil conditions
 - Description of soil texture in the application block,
 - Description of soil moisture and method used to determine soil moisture, and
 - Soil temperature measurement.
- ❖ Buffer zones
 - Application method,
 - Application rate from lookup table on label,
 - Application block size from lookup table on label,
 - Credits applied and measurements taken (if applicable),
 - Organic matter content
 - Clay content
 - Soil temperature
 - Buffer zone distance, and
 - Description of areas in the buffer zone that are not under the control of the owner of the application block. If buffer zones extend onto areas not under the control of the owner, attach the written agreement and keep it with the FMP.
- ❖ Record Emergency Response Plan as described in the *Emergency Response Plan* section.
- ❖ Posting of Fumigant Treated Area and Buffer Zone
 - Person(s) who will post and remove (if different) Fumigant Treated Area and Buffer Zone signs, and
 - Location of Buffer Zone signs.
- ❖ Emergency Preparedness and Response Measures (if applicable).
 - Fumigant site monitoring (if applicable):
 - When and where it will be conducted;
 - Response information for neighbors (if applicable):
 - List of residences and businesses informed,
 - Name and phone number of person providing information, and
 - Method of providing the information.
- ❖ State and/or tribal lead agency advance notification (if state and/or tribal lead agency requires notice, provide a list of contacts that were notified and date notified)
- ❖ Plan describing how communication will take place between the certified applicator supervising the application, the owner, and other on-site handlers (e.g., tarp perforators/removers, irrigators) for complying with label requirements (e.g., buffer zone location, buffer zone start and end times, timing of tarp perforation and removal, PPE).
 - Name and phone number of persons contacted by the certified applicator, and
 - Date contacted.
- ❖ Handler (including Certified Applicators) Information and PPE
 - Names, addresses and phone numbers of handlers
 - Names, addresses, and phone numbers for employers of handlers
 - Tasks that each handler is authorized and trained to perform

- Date of PPE training for each handler
- Applicable handler PPE including:
 - coveralls over short-sleeved shirt and short pants when in the treated application block
 - chemical-resistant gloves
 - shoes plus socks
 - protective eyewear
 - air-purifying respirators
 - respirator make, model, type, style, size, cartridge type, and cartridge replacement schedule
 - other PPE
- For handlers: Confirmation of receipt of Fumigant Safe Handling Information.
- For handlers designated to wear air-purifying respirators:
 - date of medical qualification to wear a respirator,
 - date of respirator training, and
 - date of fit-testing for the respirator.
- Unless exempted in the *Protection of Handlers* section, verify that:
 - at minimum 1 handler has the appropriate respirators and cartridges during handler activities, and
 - the employer has confirmed that the appropriate respirator and cartridges are immediately available for each handler who will wear one.
- ❖ Air monitoring plan
 - If sensory irritation is experienced, indicate whether operations will cease or operations will continue with use of an air-purifying respirator
 - For monitoring the breathing zone:
 - Representative handler tasks to be monitored,
 - Monitoring equipment to be used, and
 - Timing of the monitoring.
 - Fumigant site monitoring:
 - Monitoring equipment to be used.
- ❖ Good Agricultural Practices (GAPs)
 - Identify (e.g., list, attach applicable label section) applicable mandatory GAPs.
- ❖ Ensure that labels and MSDS are on-site and readily available for employees to review.

Record-Keeping Procedures

The owner of the application block as well as the certified applicator supervising the application must keep a signed copy of the site-specific FMP for 2 years from the date of application.

For situations where an initial FMP is developed and certain elements do not change for multiple application blocks (e.g., applicator information, certified applicator, handlers, record-keeping procedures, emergency procedures) only elements that have changed need to be updated in the site-specific FMP provided the following:

- The certified applicator supervising the application has verified that those elements are current and applicable to the application block before it is fumigated.
- Record-keeping requirements are followed for the entire FMP (including elements that do not change).

The certified applicator must make a copy of the FMP immediately available for viewing by handlers involved in the fumigation. The certified applicator or the owner of the application block must provide a copy of the FMP to any local/state/federal/tribal enforcement personnel who request the FMP. In the case of an emergency, the FMP must be made immediately available when requested by local/state/federal/tribal emergency response and enforcement personnel. The certified applicator supervising the application must ensure the FMP is at the application block during all handler activities.

Within 30 days after the application is complete, the certified applicator supervising the application must complete a Post-Application Summary.

Post-Application Summary

The Post-Application Summary must contain the following elements:

- ❖ Actual date and time of the application,
- ❖ Application rate
- ❖ Size of application block

- ❖ Weather Conditions
 - Summary of the National Weather Service weather forecast during the application and the 48-hours after the application is complete including:
 - wind speed, and
 - air stagnation advisory (if applicable).
 - Forecast must be checked on the day of, but prior to the start of the application, and on a daily basis during the application if the time period from the start of the application until the application is complete is greater than 24 hours.
- ❖ Tarp damage and repair information (if applicable):
 - Date of tarp damage discovery,
 - Location and size of tarp damage,
 - Description of tarp/tarp seal/tarp equipment failure, and
 - Date and time of tarp repair completion.
- ❖ Tarp perforation/removal details (if applicable):
 - Date and time tarps were perforated,
 - Date and time tarps were removed, and
 - Record if tarps were perforated and/or removed early. Describe the conditions that caused early tarp perforation and/or removal.
- ❖ Complaint details (if applicable):
 - Person filing complaint (e.g., on-site handler, person off-site),
 - If off-site person, name, address, and phone number of person filing complaint, and
 - Description of control measures or emergency procedures followed after complaint.
- ❖ Description of incidents (including date and time), equipment failure, or other emergency and emergency procedures followed (if applicable).
- ❖ Communication between applicator, owner and other on-site handlers (if applicable)
 - Record additional dates persons were contacted.
- ❖ Air monitoring results:
 - When sensory irritation was experienced:
 - Date(s), time(s) and location(s) of sensory irritation or air sample measurement with the direct read detection device,
 - Handler name and task/activity
 - Air concentration measurement with direct read detection device (if applicable)
 - Resulting action/comments (e.g., cease operations, continue operations with air-purifying respirators, implement emergency response plan)
- ❖ Fumigant Treated Area and Buffer Zone Signs:
 - Dates of posting and removal.
- ❖ Any deviations from the FMP (e.g., changes in emergency response actions, changes in handler information, changes in handlers responsible for completing emergency tasks),

Record-Keeping Procedures

The owner of the application block, as well as the certified applicator supervising the application, must keep a signed copy of the Post-Application Summary for 2 years from the date of application.

ADDITIONAL INFORMATION

Important Information to User

- 1) Read the entire label carefully before use.
- 2) This product is toxic to all growing plants.
- 3) Root pruning with a plow or trencher is recommended when applications will be made adjacent to large plant material.
- 4) If slopes are treated with this product, take precautions to prevent the chemical from washing downward toward desirable plants, creeks, streams, lakes or ponds. Erect silt fences or place straw bales in vulnerable areas. Cover drains in the treated area that may empty into ponds or creeks or onto desirable vegetation. Tarping of these areas is also effective to reduce the possibility of off site movement.
- 5) Vapors from soil treated with this product in greenhouses and cold frames may injure growing plants. Data are not complete on use in propagating beds composed of materials other than soil or soil and peat mixtures. Clean equipment thoroughly with detergent and water after using with this or with other pesticides before using for other purposes.
- 6) Fumigation may slow the rate of nitrification (the conversion of nitrates from ammonia by bacterial action). Therefore, certain ammonia-sensitive plants may exhibit growth inhibition when planted in fumigated soils containing high amounts of ammonia nitrogen. To lessen this hazard, at least half, and preferably all, of the nitrogen fertilizer added immediately before or soon after fumigation should be in the form of nitrate nitrogen. This hazard may also be reduced by delaying planting until several months after fumigation, such as fall fumigation before a spring-planted crop. If a nitrate form of nitrogen such as sodium or calcium nitrate is not readily available, ammonium nitrate used sparingly will supply the nitrogen needed without risk. Phosphorus, potassium, and other plant nutrients should be used according to soil needs.

Mode of Action

When Basamid G soil fumigant is correctly incorporated into moist soil, the active ingredient is transformed into methyl isothiocyanate (MITC) gas. MITC diffuses upward through spaces in the soil, killing the living organisms it contacts. As with other sterilizing materials, the effectiveness of Basamid G depends primarily on the concentration used, the length of time that it takes effect, and the physiological state of the organisms to be controlled. Free-living nematodes, developing fungal mycelium, and freshly-germinating weed seeds are most likely to be controlled. Dormant weed seeds, fungi in a resting stage, and encysted nematodes, or those protected within roots, will not be controlled.

Crop Tolerance

All crops listed on the label are tolerant to areas that have been treated with Basamid G following dissipation of the gases. Data have shown that certain subsequent crops are positively influenced by a Basamid G treatment, because pathogens, weeds, etc. will not have time to multiply and compete with the crop for nutrients. However, the presence of Basamid G is toxic to all growing plants. Perform the **Safety Germination Test** to ensure the absence of gases.

Cleaning Equipment

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product.

PESTS LISTED ON THIS LABEL

Table 5. Germinating Seeds of Annual and Perennial Weeds

Common Name	Scientific Name
Barnyardgrass	<i>Echinochloa crus-galli</i>
Birdweed	<i>Convolvulus arvensis</i>
Blackgrass	<i>Alopecurus myosuroides</i>
Bristlegrass	<i>Setaria spp.</i>
Buckwheat, Wild	<i>Polygonum convulvulus</i>
Callalily, Brazil	<i>Richardia brasiliensis</i>
Chamomile, Wild	<i>Matricaria chamomilla</i>
Chickweed	<i>Stellaria media</i>
Cinquefoil	<i>Potentilla norvegica</i>
Cleavers	<i>Galium aparine</i>
Clover	<i>Trifolium spp.</i>
Cocksfoot	<i>Dactylus glomerata</i>
Corn Flower	<i>Centurea cyanus</i>
Crabgrass	<i>Digitaria spp.</i>
Cress, Hoary	<i>Cardaria draba</i>
Dock, Broadleaved	<i>Rumex obtusifolius</i>
Fescuegrass	<i>Festuca arundinacea</i>
Foxtail, Short-awned	<i>Alopecurus aequalis</i>
Fumitory, Common	<i>Fumaria officinalis</i>
Galinsoga, Small-flowered	<i>Galinsoga parviflora</i>
Groundsel	<i>Senecio vulgaris</i>
Hempnettle	<i>Galeopsis tetrahit</i>
Henbit	<i>Lamium amplexicaule</i>
Itchgrass	<i>Rottboellia exaltata</i>
Jimsonweed	<i>Datura stramonium</i>
Knotgrass	<i>Polygonum aviculare</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters	<i>Chenopodium album</i>
Marigold, Corn	<i>Chrysanthemum segetum</i>
Marigold, Dwarf	<i>Schkuhria pinnata</i>
Meadowgrass, Annual (aka Annual Bluegrass)*	<i>Poa annua</i>
Medic	<i>Medicago spp.</i>
Mustard, Wild	<i>Brassica kaber</i>
Nettle, Small	<i>Urtica urens</i>
Nettle, Stinging	<i>Urtica dioica</i>
Nightshade, Black	<i>Solanum nigrum</i>
Oats, Wild	<i>Avena fatua</i>
Pennycress, Field	<i>Thlapsi arvense</i>
Pigweed	<i>Amaranthus spp.</i>
Purslane, Common	<i>Portulaca oleracea</i>
Quackgrass	<i>Agropyron repens</i>
Radish, Wild	<i>Raphanus raphanistrum</i>
Rapeseed	<i>Brassica spp.</i>
Sedges	<i>Cyperus spp.</i>
Shepardspurse	<i>Capsella bursa-pastosis</i>
Smartweed, Pale	<i>Polygonum lapatifolium</i>
Spurge, Sun	<i>Euphorbia helioscopia</i>
Vetch, Tufted*	<i>Vicia cracca</i>
Witchweed	<i>Striga asiatica</i>
Yellowrocket	<i>Barbarea vulgaris</i>

*Not for use in California

Table 6. Root Propagated Weeds

Common Name	Scientific Name
Bermudagrass**	<i>Cynodon dactylon</i>
Bindweed, Field*	<i>Convolvulus arvensis</i>
Cinquefoil, Rough*	<i>Potentilla norvegica</i>
Clover*	<i>Trifolium spp.</i>
Cress, Hoary*	<i>Cardaria draba</i>
Nettle, Stinging*	<i>Urtica dioica</i>
Quackgrass*	<i>Agropyron repens</i>
Sedges**	<i>Cyperus spp.</i>

*Not for use in California

**In California, either treat with glyphosate and fluzafop before applying Basamid G or apply tarps after treating with Basamid G alone. Follow the label instructions on all pesticides.

Table 7. Parasitic weeds

Common Name	Scientific Name
Broomrape	<i>Orobanche spp.</i>
Dodder*	<i>Cuscuta spp.</i>
Witchweed	<i>Striga spp.</i>

*Not for use in California

Table 8. Plant-parasitic nematodes

Common Name	Scientific Name
Cyst-forming root nematodes	
Eelworm, Beet Cyst*	<i>Heterodera schachtii</i>
Eelworm, Pea Cyst*	<i>Heterodera goettingia</i>
Eelworm, Yellow Potato Cyst*	<i>Globodera rostochiensis</i>
Free-living (migratory) root nematodes	
Eelworm, Dagger	<i>Rotylenchus spp.</i>
Nematode, Lance	<i>Hoplolaimus spp.</i>
Nematode, Root	<i>Tylenchus spp.</i>
Nematode, Spiral	<i>Tylenchorrhynchus spp.</i>
Nematode, Stunt	<i>Xiphinema spp.</i>
Root knot nematodes	
Eelworm, Root Knot	<i>Meloidogyne spp.</i>
Stem and leaf nematodes	
Eelworm, Stem and Bulb*	<i>Ditylenchus dipsaci</i>

*Not approved for use in California

Table 9. Soil-borne Fungi

Common Name	Scientific Name
Blights	
Blossom blight*	<i>Choanephora cucurbitarum</i>
Early blight*	<i>Alternaria solani</i>
Molds	
Black mold*	<i>Aspergillus niger</i>
Black mold*	<i>Cladosporium herbarum</i>
Citrus molds*	<i>Penicillium spp</i>
Grey mold*	<i>Botrytis spp.</i>
Molds*	<i>Mucor circinelloides</i>
White mold*	<i>Mycogone perniciosa</i>
Spots	
Eyespot*	<i>Cercospora spp.</i>

	Common Name	Scientific Name
Root Diseases		
	Club root*	<i>Plasmodiophora brassicae</i>
	Corky root of tomato*	<i>Pyrenochaeta lycopersici</i>
	Root diseases	<i>Rhizoctonia spp.</i>
	Root diseases*	<i>Rosellinia spp.</i>
Rots		
	Bitter rot*	<i>Gloeosporium fructigenum</i>
	Blackroot rot*	<i>Macrophomina phaseolina</i>
	Blackroot rot*	<i>Phomopsis sclerotoides</i>
	Blackroot rot*	<i>Thielaviopsis basicola</i>
	Buttrot*	<i>Fomes spp.</i>
	Citrus bitter rot*	<i>Trichothecium roseum</i>
	Club root*	<i>Plasmodiophora brassicae</i>
	Corky root of tomato*	<i>Pyrenochaeta lycopersici</i>
	Foot rots	<i>Fusarium spp.</i>
	Fruit rot*	<i>Didymella lycopersici</i>
	Fruit rot*	<i>Choanephora cucurbitarum</i>
	Heart rot*	<i>Fomes spp.</i>
	Root rot*	<i>Aphanomyces spp.</i>
	Root rot*	<i>Helicobasidium mompa</i>
	Root rot*	<i>Sclerotium spp.</i>
	Root rots	<i>Phytophthora spp.</i>
	Sclerotinia softrots*	<i>Sclerotinia spp.</i>
	Soft rot*	<i>Rhizopus spp.</i>
	Tomato stem rot*	<i>Didymella lycopersici</i>
	White rot*	<i>Sclerotium cepivorum</i>
Wilts		
	Wilt disease	<i>Verticillium spp.</i>
	Wilts*	<i>Phialophora spp.</i>
Others		
	Blackleg*	<i>Phoma spp.</i>
	Damping off	<i>Pythium spp.</i>
	Mushroom pathogen*	<i>Myriococcum spp.</i>
	Mushroom pathogen*	<i>Thielavia spp.*</i>
	Mushroom pathogen*	<i>Diehliomyces microspores</i>
	Silver leaf*	<i>Stereum purpureum</i>
	Soil pathogen*	<i>Chaetomium spp.</i>
	Soil pathogen*	<i>Clomerella cingulata</i>
	Soil pathogen*	<i>Collectotrichum spp.</i>
	Soil pathogen*	<i>Cylindrocarpon spp.</i>
	Soil pathogen	<i>Nigrospora sacchan</i>
	Soil pathogen	<i>Sporotrichum spinosum</i>
	Soil pathogen	<i>Stemphylium radicum</i>

*Not approved for use in California

Table 10. Soil-borne Bacteria

Common Name	Scientific Name
Gall, Crown*	<i>Agrobacterium tumefaciens</i>
Scabs*	<i>Streptomyces spp.</i>

*Not approved for use in California

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store this product in a dry, cool place below 95° F (35° C) -- it will decompose at higher temperatures. This material reacts nonviolently with moisture, releasing fumigant vapors. Keep the container tightly sealed when not in use. Do not re-use the empty container. Keep this product and its vapors away from desirable plants, seeds, fertilizers, insecticides, and other agricultural chemicals as plant injury or loss may result from contamination.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Steps to be taken in case material is released: Keep the spill out of all sewers and open bodies of water. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

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