

Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Solids NMR Sample Kit 7.5mm+ Probes, Part Number G5232-85000

1. Identification of the material and supplier

Names

Product name : Solids NMR Sample Kit 7.5mm+ Probes, Part Number G5232-85000

Part No. (Chemical Kit) : G5232-85000

Part No. : Adamantane 100277
Ammonium dihydrogenphosphate 204005
Glycine-15N 299294
Hexamethylbenzene 322377
Potassium bromide P0838

ADG : CHEMICAL KIT

Supplier

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number : CHEMTREC®: +(61)-290372994

Uses

Area of application : Adamantane Industrial applications, Professional applications.
Ammonium dihydrogenphosphate Industrial applications, Professional applications.
Glycine-15N Industrial applications, Professional applications.
Hexamethylbenzene Industrial applications, Professional applications.
Potassium bromide Industrial applications, Professional applications.

Material uses : Analytical chemistry.
Glass vials
5 X 5 g
Adamantane 5 g
Ammonium dihydrogenphosphate 5 g
Glycine-15N 5 g
Hexamethylbenzene 5 g
Potassium bromide 5 g

2. Hazards identification

Classification : Adamantane N; R50/53
Ammonium dihydrogenphosphate Not regulated.
Glycine-15N Not regulated.
Hexamethylbenzene Not regulated.
Potassium bromide T; R48/23
Xi; R36/37/38

Risk phrases : Adamantane R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Ammonium dihydrogenphosphate Not classified.
Glycine-15N Not classified.
Hexamethylbenzene Not classified.
Potassium bromide R48/23- Toxic: danger of serious damage to health by prolonged exposure through

2 . Hazards identification

Safety phrases	: Adamantane	inhalation. R36/37/38- Irritating to eyes, respiratory system and skin. S36- Wear suitable protective clothing. S61- Avoid release to the environment. Refer to special instructions/safety data sheet.
	Ammonium dihydrogenphosphate	S36- Wear suitable protective clothing.
	Glycine-15N	S36- Wear suitable protective clothing.
	Hexamethylbenzene	S36- Wear suitable protective clothing.
	Potassium bromide	S36- Wear suitable protective clothing. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Statement of hazardous/ dangerous nature	: Adamantane	NON-HAZARDOUS SUBSTANCE. DANGEROUS GOODS.
	Ammonium dihydrogenphosphate	NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.
	Glycine-15N	NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.
	Hexamethylbenzene	NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.
	Potassium bromide	HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

3 . Composition/information on ingredients

Mixture	: Adamantane	Yes.
	Ammonium dihydrogenphosphate	Yes.
	Glycine-15N	No.
	Hexamethylbenzene	Yes.
	Potassium bromide	Yes.

Ingredient name	CAS number	Concentration
Adamantane Tricyclo[3.3.1.1 ^{3,7}]decane	281-23-2	>60
Potassium bromide Potassium bromide	7758-02-3	>60

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4 . First-aid measures

Inhalation	: Adamantane	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Ammonium dihydrogenphosphate	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed

4 . First-aid measures

	Glycine-15N	<p>person may need to be kept under medical surveillance for 48 hours.</p> <p>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.</p>
	Hexamethylbenzene	<p>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</p>
	Potassium bromide	<p>Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.</p>
Ingestion	: Adamantane	<p>Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.</p>
	Ammonium dihydrogenphosphate	<p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</p>
	Glycine-15N	<p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</p>
	Hexamethylbenzene	<p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is</p>

4 . First-aid measures

Potassium bromide

conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Adamantane

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ammonium dihydrogenphosphate

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Glycine-15N

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Hexamethylbenzene

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Potassium bromide

Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact

: Adamantane

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Ammonium dihydrogenphosphate

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Glycine-15N

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Hexamethylbenzene

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Potassium bromide

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get

4 . First-aid measures

Protection of first-aiders	: Adamantane	medical attention. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Ammonium dihydrogenphosphate	No action shall be taken involving any personal risk or without suitable training.
	Glycine-15N	No action shall be taken involving any personal risk or without suitable training.
	Hexamethylbenzene	No action shall be taken involving any personal risk or without suitable training.
	Potassium bromide	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Advice to doctor	: Adamantane	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Ammonium dihydrogenphosphate	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Glycine-15N	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Hexamethylbenzene	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Potassium bromide	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

Extinguishing media

Suitable	: Adamantane	Use an extinguishing agent suitable for the surrounding fire.
	Ammonium dihydrogenphosphate	Use an extinguishing agent suitable for the surrounding fire.
	Glycine-15N	Use dry chemical powder.
	Hexamethylbenzene	Use an extinguishing agent suitable for the surrounding fire.
	Potassium bromide	Use an extinguishing agent suitable for the surrounding fire.
Not suitable	: Adamantane	None known.
	Ammonium dihydrogenphosphate	None known.
	Glycine-15N	Do not use water jet.
	Hexamethylbenzene	None known.
	Potassium bromide	None known.
Special exposure hazards	: Adamantane	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5 . Fire-fighting measures

	Ammonium dihydrogenphosphate	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Glycine-15N	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	Hexamethylbenzene	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Potassium bromide	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Adamantane	No specific fire or explosion hazard.
	Ammonium dihydrogenphosphate	No specific fire or explosion hazard.
	Glycine-15N	Fine dust clouds may form explosive mixtures with air.
	Hexamethylbenzene	No specific fire or explosion hazard.
	Potassium bromide	No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Adamantane	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Ammonium dihydrogenphosphate	Decomposition products may include the following materials: nitrogen oxides phosphorus oxides
	Glycine-15N	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	Hexamethylbenzene	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Potassium bromide	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	
Hazchem code	: 2Z	

6 . Accidental release measures

Personal precautions	: Adamantane	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
	Ammonium dihydrogenphosphate	No action shall be taken involving any personal risk or without suitable training. Evacuate

6 . Accidental release measures

	surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment (see Section 8).
Glycine-15N	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment (see Section 8).
Hexamethylbenzene	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment (see Section 8).
Potassium bromide	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Adamantane

	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Ammonium dihydrogenphosphate	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Glycine-15N	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hexamethylbenzene	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Potassium bromide	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up : Adamantane

	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Ammonium dihydrogenphosphate	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a

6 . Accidental release measures

Glycine-15N	licensed waste disposal contractor. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Hexamethylbenzene	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Potassium bromide	Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

Handling

: Adamantane

Ammonium dihydrogenphosphate	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Refer to special instructions/safety data sheet. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Glycine-15N	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

7 . Handling and storage

Hexamethylbenzene	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.
Potassium bromide	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

: Adamantane	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Ammonium dihydrogenphosphate	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Glycine-15N	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Hexamethylbenzene	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section

7 . Handling and storage

Potassium bromide

10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

8 . Exposure controls/personal protection

Occupational exposure limits : No exposure standard allocated.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Exposure controls

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state	: Adamantane	Solid. [Crystalline solid.]
	Ammonium dihydrogenphosphate	Solid. [Crystalline solid.]
	Glycine-15N	Solid. [Powder.]
	Hexamethylbenzene	Solid. [Crystalline solid.]
	Potassium bromide	Solid.
Colour	: Adamantane	Beige.
	Ammonium dihydrogenphosphate	Colourless.
	Glycine-15N	White.
	Hexamethylbenzene	Yellow.
	Potassium bromide	Not available.
Odour	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Odourless.
	Hexamethylbenzene	Not available.
	Potassium bromide	Not available.
Odour threshold	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Not available.
	Hexamethylbenzene	Not available.
	Potassium bromide	Not available.
Boiling point	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Decomposes.
	Glycine-15N	Decomposes.
	Hexamethylbenzene	264°C (507.2°F)
	Potassium bromide	1453°C (2647.4°F)
Melting point	: Adamantane	209 to 212°C (408.2 to 413.6°F)
	Ammonium dihydrogenphosphate	190°C (374°F)
	Glycine-15N	290°C (554°F)
	Hexamethylbenzene	164 to 166°C (327.2 to 330.8°F)
	Potassium bromide	734°C (1353.2°F)
Vapour pressure	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Not available.
	Hexamethylbenzene	Not available.
	Potassium bromide	Not available.
Relative density	: Adamantane	1.07
	Ammonium dihydrogenphosphate	1.8
	Glycine-15N	Not available.
	Hexamethylbenzene	1.063
	Potassium bromide	2.75
Flash point	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Not available.
	Hexamethylbenzene	Not available.
	Potassium bromide	Not available.
Flammable limits	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Not available.
	Hexamethylbenzene	Not available.
	Potassium bromide	Not available.
Vapour density	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Not available.
	Hexamethylbenzene	5.6 [Air = 1]
	Potassium bromide	Not available.
pH	: Adamantane	Not applicable.
	Ammonium dihydrogenphosphate	7.8 to 8.2 [Conc. (% w/w): 5%]
	Glycine-15N	Not available.
	Hexamethylbenzene	Not available.
	Potassium bromide	5 to 6 [Conc. (% w/w): 119%]

9 . Physical and chemical properties

Viscosity	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Not available.
	Hexamethylbenzene	Not available.
	Potassium bromide	Not available.
Auto-ignition temperature	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Not available.
	Hexamethylbenzene	Not available.
	Potassium bromide	Not available.
Evaporation rate	: Adamantane	Not available.
	Ammonium dihydrogenphosphate	Not available.
	Glycine-15N	Not available.
	Hexamethylbenzene	Not available.
	Potassium bromide	Not available.
Solubility	: Adamantane	Insoluble in the following materials: cold water and hot water.
	Ammonium dihydrogenphosphate	Soluble in the following materials: cold water and hot water.
	Glycine-15N	Very slightly soluble in the following materials: acetone. Insoluble in the following materials: diethyl ether.
	Hexamethylbenzene	Insoluble in the following materials: cold water and hot water.
	Potassium bromide	Easily soluble in the following materials: cold water and hot water.

10 . Stability and reactivity

Chemical stability	: Adamantane	The product is stable.
	Ammonium dihydrogenphosphate	The product is stable.
	Glycine-15N	The product is stable.
	Hexamethylbenzene	The product is stable.
	Potassium bromide	The product is stable.
Possibility of hazardous reactions	: Adamantane	Under normal conditions of storage and use, hazardous reactions will not occur.
	Ammonium dihydrogenphosphate	Under normal conditions of storage and use, hazardous reactions will not occur.
	Glycine-15N	Under normal conditions of storage and use, hazardous reactions will not occur.
	Hexamethylbenzene	Under normal conditions of storage and use, hazardous reactions will not occur.
	Potassium bromide	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Adamantane	No specific data.
	Ammonium dihydrogenphosphate	No specific data.
	Glycine-15N	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
	Hexamethylbenzene	No specific data.
	Potassium bromide	No specific data.
Materials to avoid	: Adamantane	No specific data.
	Ammonium dihydrogenphosphate	No specific data.
	Glycine-15N	Reactive or incompatible with the following materials: oxidizing materials
	Hexamethylbenzene	No specific data.
	Potassium bromide	No specific data.

10 . Stability and reactivity

Hazardous decomposition products	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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11 . Toxicological information

Potential acute health effects

Inhalation	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. No known significant effects or critical hazards. Irritating to respiratory system.
Ingestion	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Irritating to mouth, throat and stomach.
Skin contact	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Irritating to skin.
Eye contact	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes. No known significant effects or critical hazards. Irritating to eyes.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Adamantane Tricyclo[3.3.1.1 ^{3,7}]decane	LD50 Oral	Rat	>10 g/kg	-
Glycine-15N Glycine-15n	LD50 Oral	Rat	7930 mg/kg	-
Potassium bromide Potassium bromide	LD50 Oral	Rat	3070 mg/kg	-

Conclusion/Summary : Not available.

Potential chronic health effects

Irritation/Corrosion

11 . Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Adamantane Tricyclo[3.3.1.1 ^{3,7}]decane	Eyes - Mild irritant	Rabbit	-	50 milligrams	-

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

Chronic effects	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. No known significant effects or critical hazards. Toxic: danger of serious damage to health by prolonged exposure through inhalation.
Carcinogenicity	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No specific data. No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No specific data. No specific data. No specific data. No specific data. No specific data.

11 . Toxicological information

Skin	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation redness
Eyes	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	No specific data. No specific data. Adverse symptoms may include the following: irritation redness No specific data. Adverse symptoms may include the following: irritation watering redness
Other adverse symptoms	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	Not available. Not available. Not available. Not available. Not available.
Target organs	: Adamantane Ammonium dihydrogenphosphate Glycine-15N Hexamethylbenzene Potassium bromide	Not available. Not available. Not available. Not available. Not available. Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes, central nervous system (CNS).

12 . Ecological information

Ecotoxicity : This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Adamantane Tricyclo[3.3.1.1 ^{3,7}]decane	Acute LC50 285 to 312 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Potassium bromide Potassium bromide	Acute LC50 100 mg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Other ecological information

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Adamantane Adamantane Tricyclo[3.3.1.1 ^{3,7}]decane	4.24 4.24	- -	high high
Glycine-15N Glycine-15n	-3.21	-	low
Hexamethylbenzene Hexamethylbenzene	5.11	-	high
Potassium bromide Potassium bromide	-	1.41	low





Other adverse effects : No known significant effects or critical hazards.

13 . Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

14 . Transport information

Additional information : Special provisions
251, 340

Regulation	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADG	UN3316	CHEMICAL KIT	9	III		Hazchem code 2Z Special provisions 251, 340
IMDG	UN3316	CHEMICAL KIT. Marine pollutant (Tricyclo[3.3.1.13, 7]decane)	9	III	 	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules (EmS) F-A, _S-P_ Special provisions 251, 340
IATA	UN3316	Chemical kit	9	III		The environmentally hazardous substance mark may appear if required by other transportation regulations. Passenger and Cargo Aircraft Aircraft Quantity limitation: 10 kg Packaging instructions: 960 Cargo Aircraft Only Quantity limitation: 10 kg Packaging instructions: 960 Limited Quantities - Passenger Aircraft Quantity limitation: 1 kg Packaging instructions: Y960 Special provisions A44, A163

PG* : Packing group

15 . Regulatory information

Standard Uniform Schedule of Medicine and Poisons

Not regulated.

Control of Scheduled Carcinogenic Substances

<u>Ingredient name</u>	<u>Schedule</u>
No listed substance	

Australia inventory (AICS) : Not determined.

16 . Other information

Remarks :
Date of issue : 12/06/2014
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✔ Indicates information that has changed from previously issued version.

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