

SAFETY DATA SHEET



VariFlex N-Terminal SBP-SET Vector Set, Part Number 240164

Section 1. Identification

1.1 Product identifier

Product name : VariFlex N-Terminal SBP-SET Vector Set, Part Number 240164
Part No. (Chemical Kit) : 240164
Part No. : pBEn-SBP-SET1a Vector 240164-51
 pBEn-SBP-SET1b Vector 240164-52
 pBEn-SBP-SET1c 240164-53
 pBEn-SBP-SET2a Vector 240164-54
 pBEn-SBP-SET2b 240164-55
 pBEn-SBP-SET2c 240164-56
 pBEn-SBP-SET3a Vector 240164-57
 pBEn-SBP-SET3b Vector 240164-58
 pBEn-SBP-SET3c 240164-59

Validation date : 4/21/2017

1.2 Relevant identified uses of the substance or mixture and uses advised against

Material uses : Analytical reagent.
 pBEn-SBP-SET1a Vector 0.02 ml
 pBEn-SBP-SET1b Vector 0.02 ml (20 µg 1 µg/µl)
 pBEn-SBP-SET1c 0.02 ml (20 µg 1 µg/µl)
 pBEn-SBP-SET2a Vector 0.02 ml
 pBEn-SBP-SET2b 0.02 ml (20 µg 1 µg/µl)
 pBEn-SBP-SET2c 0.02 ml (20 µg 1 µg/µl)
 pBEn-SBP-SET3a Vector 0.02 ml (20 µg 1 µg/µl)
 pBEn-SBP-SET3b Vector 0.02 ml (20 µg 1 µg/µl)
 pBEn-SBP-SET3c 0.02 ml (20 µg 1 µg/µl)

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : pBEn-SBP-SET1a Vector While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
 pBEn-SBP-SET1b Vector While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
 pBEn-SBP-SET1c While this material is not considered hazardous by the

Section 2. Hazards identification

	OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
pBEn-SBP-SET2a Vector	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
pBEn-SBP-SET2b	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
pBEn-SBP-SET2c	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
pBEn-SBP-SET3a Vector	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
pBEn-SBP-SET3b Vector	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
pBEn-SBP-SET3c	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

Not classified.

2.2 GHS label elements

Signal word

:	pBEn-SBP-SET1a Vector	No signal word.
	pBEn-SBP-SET1b Vector	No signal word.
	pBEn-SBP-SET1c	No signal word.
	pBEn-SBP-SET2a Vector	No signal word.
	pBEn-SBP-SET2b	No signal word.
	pBEn-SBP-SET2c	No signal word.
	pBEn-SBP-SET3a Vector	No signal word.
	pBEn-SBP-SET3b Vector	No signal word.
	pBEn-SBP-SET3c	No signal word.

Hazard statements :

Section 2. Hazards identification

	pBEn-SBP-SET1a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1c	No known significant effects or critical hazards.
	pBEn-SBP-SET2a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET2b	No known significant effects or critical hazards.
	pBEn-SBP-SET2c	No known significant effects or critical hazards.
	pBEn-SBP-SET3a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3c	No known significant effects or critical hazards.
<u>Precautionary statements</u>		
Prevention	: pBEn-SBP-SET1a Vector	Not applicable.
	pBEn-SBP-SET1b Vector	Not applicable.
	pBEn-SBP-SET1c	Not applicable.
	pBEn-SBP-SET2a Vector	Not applicable.
	pBEn-SBP-SET2b	Not applicable.
	pBEn-SBP-SET2c	Not applicable.
	pBEn-SBP-SET3a Vector	Not applicable.
	pBEn-SBP-SET3b Vector	Not applicable.
	pBEn-SBP-SET3c	Not applicable.
Response	: pBEn-SBP-SET1a Vector	Not applicable.
	pBEn-SBP-SET1b Vector	Not applicable.
	pBEn-SBP-SET1c	Not applicable.
	pBEn-SBP-SET2a Vector	Not applicable.
	pBEn-SBP-SET2b	Not applicable.
	pBEn-SBP-SET2c	Not applicable.
	pBEn-SBP-SET3a Vector	Not applicable.
	pBEn-SBP-SET3b Vector	Not applicable.
	pBEn-SBP-SET3c	Not applicable.
Storage	: pBEn-SBP-SET1a Vector	Not applicable.
	pBEn-SBP-SET1b Vector	Not applicable.
	pBEn-SBP-SET1c	Not applicable.
	pBEn-SBP-SET2a Vector	Not applicable.
	pBEn-SBP-SET2b	Not applicable.
	pBEn-SBP-SET2c	Not applicable.
	pBEn-SBP-SET3a Vector	Not applicable.
	pBEn-SBP-SET3b Vector	Not applicable.
	pBEn-SBP-SET3c	Not applicable.
Disposal	: pBEn-SBP-SET1a Vector	Not applicable.
	pBEn-SBP-SET1b Vector	Not applicable.
	pBEn-SBP-SET1c	Not applicable.
	pBEn-SBP-SET2a Vector	Not applicable.
	pBEn-SBP-SET2b	Not applicable.
	pBEn-SBP-SET2c	Not applicable.
	pBEn-SBP-SET3a Vector	Not applicable.
	pBEn-SBP-SET3b Vector	Not applicable.
	pBEn-SBP-SET3c	Not applicable.
Supplemental label elements	: pBEn-SBP-SET1a Vector	None known.
	pBEn-SBP-SET1b Vector	None known.
	pBEn-SBP-SET1c	None known.
	pBEn-SBP-SET2a Vector	None known.
	pBEn-SBP-SET2b	None known.
	pBEn-SBP-SET2c	None known.
	pBEn-SBP-SET3a Vector	None known.
	pBEn-SBP-SET3b Vector	None known.
	pBEn-SBP-SET3c	None known.

2.3 Other hazards

Section 2. Hazards identification

Hazards not otherwise classified	:	pBEn-SBP-SET1a Vector	None known.
		pBEn-SBP-SET1b Vector	None known.
		pBEn-SBP-SET1c	None known.
		pBEn-SBP-SET2a Vector	None known.
		pBEn-SBP-SET2b	None known.
		pBEn-SBP-SET2c	None known.
		pBEn-SBP-SET3a Vector	None known.
		pBEn-SBP-SET3b Vector	None known.
		pBEn-SBP-SET3c	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	pBEn-SBP-SET1a Vector	Mixture
		pBEn-SBP-SET1b Vector	Mixture
		pBEn-SBP-SET1c	Mixture
		pBEn-SBP-SET2a Vector	Mixture
		pBEn-SBP-SET2b	Mixture
		pBEn-SBP-SET2c	Mixture
		pBEn-SBP-SET3a Vector	Mixture
		pBEn-SBP-SET3b Vector	Mixture
		pBEn-SBP-SET3c	Mixture

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no 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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	:	pBEn-SBP-SET1a Vector	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.
		pBEn-SBP-SET1b Vector	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.
		pBEn-SBP-SET1c	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.
		pBEn-SBP-SET2a Vector	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.
		pBEn-SBP-SET2b	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.
		pBEn-SBP-SET2c	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.
		pBEn-SBP-SET3a Vector	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.

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	pBEn-SBP-SET3b Vector	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.
	pBEn-SBP-SET3c	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.
Inhalation	: pBEn-SBP-SET1a Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pBEn-SBP-SET1b Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pBEn-SBP-SET1c	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pBEn-SBP-SET2a Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pBEn-SBP-SET2b	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pBEn-SBP-SET2c	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pBEn-SBP-SET3a Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pBEn-SBP-SET3b Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pBEn-SBP-SET3c	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: pBEn-SBP-SET1a Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pBEn-SBP-SET1b Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pBEn-SBP-SET1c	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pBEn-SBP-SET2a Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pBEn-SBP-SET2b	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pBEn-SBP-SET2c	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pBEn-SBP-SET3a Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pBEn-SBP-SET3b Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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	pBEn-SBP-SET3c	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: pBEn-SBP-SET1a Vector	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.
	pBEn-SBP-SET1b Vector	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.
	pBEn-SBP-SET1c	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.
	pBEn-SBP-SET2a Vector	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.
	pBEn-SBP-SET2b	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.
	pBEn-SBP-SET2c	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.
	pBEn-SBP-SET3a Vector	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.
	pBEn-SBP-SET3b Vector	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.

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pBEn-SBP-SET3c

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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	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. 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.
Inhalation	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	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. 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.
Skin contact	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	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. 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.
Ingestion	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	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. 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

Eye contact	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
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Section 4. First aid measures

Inhalation	:	pBEn-SBP-SET1a Vector	No specific data.
		pBEn-SBP-SET1b Vector	No specific data.
		pBEn-SBP-SET1c	No specific data.
		pBEn-SBP-SET2a Vector	No specific data.
		pBEn-SBP-SET2b	No specific data.
		pBEn-SBP-SET2c	No specific data.
		pBEn-SBP-SET3a Vector	No specific data.
		pBEn-SBP-SET3b Vector	No specific data.
		pBEn-SBP-SET3c	No specific data.
Skin contact	:	pBEn-SBP-SET1a Vector	No specific data.
		pBEn-SBP-SET1b Vector	No specific data.
		pBEn-SBP-SET1c	No specific data.
		pBEn-SBP-SET2a Vector	No specific data.
		pBEn-SBP-SET2b	No specific data.
		pBEn-SBP-SET2c	No specific data.
		pBEn-SBP-SET3a Vector	No specific data.
		pBEn-SBP-SET3b Vector	No specific data.
		pBEn-SBP-SET3c	No specific data.
Ingestion	:	pBEn-SBP-SET1a Vector	No specific data.
		pBEn-SBP-SET1b Vector	No specific data.
		pBEn-SBP-SET1c	No specific data.
		pBEn-SBP-SET2a Vector	No specific data.
		pBEn-SBP-SET2b	No specific data.
		pBEn-SBP-SET2c	No specific data.
		pBEn-SBP-SET3a Vector	No specific data.
		pBEn-SBP-SET3b Vector	No specific data.
		pBEn-SBP-SET3c	No specific data.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	:	pBEn-SBP-SET1a Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pBEn-SBP-SET1b Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pBEn-SBP-SET1c	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pBEn-SBP-SET2a Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pBEn-SBP-SET2b	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pBEn-SBP-SET2c	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pBEn-SBP-SET3a Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pBEn-SBP-SET3b Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pBEn-SBP-SET3c	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 4. First aid measures

Specific treatments	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector	None known. None known. None known. None known. None known. None known. None known.

Section 5. Fire-fighting measures

pBEn-SBP-SET3b Vector None known.
pBEn-SBP-SET3c None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical :

pBEn-SBP-SET1a Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
pBEn-SBP-SET1b Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
pBEn-SBP-SET1c	In a fire or if heated, a pressure increase will occur and the container may burst.
pBEn-SBP-SET2a Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
pBEn-SBP-SET2b	In a fire or if heated, a pressure increase will occur and the container may burst.
pBEn-SBP-SET2c	In a fire or if heated, a pressure increase will occur and the container may burst.
pBEn-SBP-SET3a Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
pBEn-SBP-SET3b Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
pBEn-SBP-SET3c	In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products :

pBEn-SBP-SET1a Vector	No specific data.
pBEn-SBP-SET1b Vector	No specific data.
pBEn-SBP-SET1c	No specific data.
pBEn-SBP-SET2a Vector	No specific data.
pBEn-SBP-SET2b	No specific data.
pBEn-SBP-SET2c	No specific data.
pBEn-SBP-SET3a Vector	No specific data.
pBEn-SBP-SET3b Vector	No specific data.
pBEn-SBP-SET3c	No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters :

pBEn-SBP-SET1a Vector	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.
pBEn-SBP-SET1b Vector	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.
pBEn-SBP-SET1c	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.
pBEn-SBP-SET2a Vector	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.
pBEn-SBP-SET2b	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.
pBEn-SBP-SET2c	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.

Section 5. Fire-fighting measures

	pBEn-SBP-SET3a Vector	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.
	pBEn-SBP-SET3b Vector	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.
	pBEn-SBP-SET3c	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.
Special protective equipment for fire-fighters	: pBEn-SBP-SET1a Vector	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pBEn-SBP-SET1b Vector	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pBEn-SBP-SET1c	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pBEn-SBP-SET2a Vector	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pBEn-SBP-SET2b	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pBEn-SBP-SET2c	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pBEn-SBP-SET3a Vector	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pBEn-SBP-SET3b Vector	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pBEn-SBP-SET3c	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

[6.1 Personal precautions, protective equipment and emergency procedures](#)

Section 6. Accidental release measures

For non-emergency personnel	: pBEn-SBP-SET1a Vector	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 spilled material. Put on appropriate personal protective equipment.
	pBEn-SBP-SET1b Vector	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 spilled material. Put on appropriate personal protective equipment.
	pBEn-SBP-SET1c	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 spilled material. Put on appropriate personal protective equipment.
	pBEn-SBP-SET2a Vector	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 spilled material. Put on appropriate personal protective equipment.
	pBEn-SBP-SET2b	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 spilled material. Put on appropriate personal protective equipment.
	pBEn-SBP-SET2c	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 spilled material. Put on appropriate personal protective equipment.
	pBEn-SBP-SET3a Vector	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 spilled material. Put on appropriate personal protective equipment.
	pBEn-SBP-SET3b Vector	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 spilled material. Put on appropriate personal protective equipment.
	pBEn-SBP-SET3c	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 spilled material. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

For emergency responders	: pBEn-SBP-SET1a Vector	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	pBEn-SBP-SET1b Vector	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	pBEn-SBP-SET1c	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	pBEn-SBP-SET2a Vector	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	pBEn-SBP-SET2b	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	pBEn-SBP-SET2c	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	pBEn-SBP-SET3a Vector	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	pBEn-SBP-SET3b Vector	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	pBEn-SBP-SET3c	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	: pBEn-SBP-SET1a Vector	Avoid dispersal of spilled 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).
	pBEn-SBP-SET1b Vector	Avoid dispersal of spilled 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).
	pBEn-SBP-SET1c	Avoid dispersal of spilled 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).
	pBEn-SBP-SET2a Vector	Avoid dispersal of spilled 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).
	pBEn-SBP-SET2b	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 6. Accidental release measures

pBEn-SBP-SET2c	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
pBEn-SBP-SET3a Vector	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
pBEn-SBP-SET3b Vector	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
pBEn-SBP-SET3c	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	: pBEn-SBP-SET1a Vector	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	pBEn-SBP-SET1b Vector	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	pBEn-SBP-SET1c	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	pBEn-SBP-SET2a Vector	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	pBEn-SBP-SET2b	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	pBEn-SBP-SET2c	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an

Section 6. Accidental release measures

pBEn-SBP-SET3a Vector	inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
pBEn-SBP-SET3b Vector	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
pBEn-SBP-SET3c	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures

: pBEn-SBP-SET1a Vector	Put on appropriate personal protective equipment (see Section 8).
pBEn-SBP-SET1b Vector	Put on appropriate personal protective equipment (see Section 8).
pBEn-SBP-SET1c	Put on appropriate personal protective equipment (see Section 8).
pBEn-SBP-SET2a Vector	Put on appropriate personal protective equipment (see Section 8).
pBEn-SBP-SET2b	Put on appropriate personal protective equipment (see Section 8).
pBEn-SBP-SET2c	Put on appropriate personal protective equipment (see Section 8).
pBEn-SBP-SET3a Vector	Put on appropriate personal protective equipment (see Section 8).
pBEn-SBP-SET3b Vector	Put on appropriate personal protective equipment (see Section 8).
pBEn-SBP-SET3c	Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

: pBEn-SBP-SET1a Vector	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. See also Section 8 for additional information on hygiene measures.
pBEn-SBP-SET1b Vector	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. See also Section 8 for additional information on hygiene measures.
pBEn-SBP-SET1c	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and

Section 7. Handling and storage

pBEn-SBP-SET2a Vector	processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. 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. See also Section 8 for additional information on hygiene measures.
pBEn-SBP-SET2b	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. See also Section 8 for additional information on hygiene measures.
pBEn-SBP-SET2c	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. See also Section 8 for additional information on hygiene measures.
pBEn-SBP-SET3a Vector	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. See also Section 8 for additional information on hygiene measures.
pBEn-SBP-SET3b Vector	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. See also Section 8 for additional information on hygiene measures.
pBEn-SBP-SET3c	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. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

: pBEn-SBP-SET1a Vector	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 unlabeled containers. Use appropriate containment to avoid environmental contamination.
pBEn-SBP-SET1b Vector	Store in accordance with local regulations. Store in

Section 7. Handling and storage

	<p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
pBEn-SBP-SET1c	<p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
pBEn-SBP-SET2a Vector	<p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
pBEn-SBP-SET2b	<p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
pBEn-SBP-SET2c	<p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
pBEn-SBP-SET3a Vector	<p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>

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pBEn-SBP-SET3b Vector

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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

pBEn-SBP-SET3c

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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations

<ul style="list-style-type: none"> : pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c 	<ul style="list-style-type: none"> Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
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Industrial sector specific solutions

<ul style="list-style-type: none"> : pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c 	<ul style="list-style-type: none"> Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
None.	

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

Section 8. Exposure controls/personal protection

Individual protection measures

- 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.
- Eye/face protection** : 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : 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.
- Body protection** : 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : pBEn-SBP-SET1a Vector Liquid.
 pBEn-SBP-SET1b Vector Liquid.
 pBEn-SBP-SET1c Liquid.
 pBEn-SBP-SET2a Vector Liquid.
 pBEn-SBP-SET2b Liquid.
 pBEn-SBP-SET2c Liquid.
 pBEn-SBP-SET3a Vector Liquid.
 pBEn-SBP-SET3b Vector Liquid.
 pBEn-SBP-SET3c Liquid.
- Color** : pBEn-SBP-SET1a Vector Not available.
 pBEn-SBP-SET1b Vector Not available.
 pBEn-SBP-SET1c Not available.
 pBEn-SBP-SET2a Vector Not available.
 pBEn-SBP-SET2b Not available.
 pBEn-SBP-SET2c Not available.
 pBEn-SBP-SET3a Vector Not available.
 pBEn-SBP-SET3b Vector Not available.
 pBEn-SBP-SET3c Not available.
- Odor** : pBEn-SBP-SET1a Vector Not available.
 pBEn-SBP-SET1b Vector Not available.
 pBEn-SBP-SET1c Not available.
 pBEn-SBP-SET2a Vector Not available.
 pBEn-SBP-SET2b Not available.
 pBEn-SBP-SET2c Not available.
 pBEn-SBP-SET3a Vector Not available.

Section 9. Physical and chemical properties

	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Odor threshold	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
pH	: pBEn-SBP-SET1a Vector	7.5
	pBEn-SBP-SET1b Vector	7.5
	pBEn-SBP-SET1c	7.5
	pBEn-SBP-SET2a Vector	7.5
	pBEn-SBP-SET2b	7.5
	pBEn-SBP-SET2c	7.5
	pBEn-SBP-SET3a Vector	7.5
	pBEn-SBP-SET3b Vector	7.5
	pBEn-SBP-SET3c	7.5
Melting point	: pBEn-SBP-SET1a Vector	0°C (32°F)
	pBEn-SBP-SET1b Vector	0°C (32°F)
	pBEn-SBP-SET1c	0°C (32°F)
	pBEn-SBP-SET2a Vector	0°C (32°F)
	pBEn-SBP-SET2b	0°C (32°F)
	pBEn-SBP-SET2c	0°C (32°F)
	pBEn-SBP-SET3a Vector	0°C (32°F)
	pBEn-SBP-SET3b Vector	0°C (32°F)
	pBEn-SBP-SET3c	0°C (32°F)
Boiling point	: pBEn-SBP-SET1a Vector	100°C (212°F)
	pBEn-SBP-SET1b Vector	100°C (212°F)
	pBEn-SBP-SET1c	100°C (212°F)
	pBEn-SBP-SET2a Vector	100°C (212°F)
	pBEn-SBP-SET2b	100°C (212°F)
	pBEn-SBP-SET2c	100°C (212°F)
	pBEn-SBP-SET3a Vector	100°C (212°F)
	pBEn-SBP-SET3b Vector	100°C (212°F)
	pBEn-SBP-SET3c	100°C (212°F)
Flash point	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Evaporation rate	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas)	: pBEn-SBP-SET1a Vector	Not applicable.
	pBEn-SBP-SET1b Vector	Not applicable.
	pBEn-SBP-SET1c	Not applicable.
	pBEn-SBP-SET2a Vector	Not applicable.
	pBEn-SBP-SET2b	Not applicable.
	pBEn-SBP-SET2c	Not applicable.
	pBEn-SBP-SET3a Vector	Not applicable.
	pBEn-SBP-SET3b Vector	Not applicable.
	pBEn-SBP-SET3c	Not applicable.
Lower and upper explosive (flammable) limits	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Vapor pressure	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Vapor density	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Relative density	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Solubility	: pBEn-SBP-SET1a Vector	Easily soluble in the following materials: cold water and hot water.
	pBEn-SBP-SET1b Vector	Easily soluble in the following materials: cold water and hot water.
	pBEn-SBP-SET1c	Easily soluble in the following materials: cold water and hot water.
	pBEn-SBP-SET2a Vector	Easily soluble in the following materials: cold water and hot water.
	pBEn-SBP-SET2b	Easily soluble in the following materials: cold water and hot water.
	pBEn-SBP-SET2c	Easily soluble in the following materials: cold water and hot water.
	pBEn-SBP-SET3a Vector	Easily soluble in the following materials: cold water

Section 9. Physical and chemical properties

	pBEn-SBP-SET3b Vector	and hot water. Easily soluble in the following materials: cold water and hot water.
	pBEn-SBP-SET3c	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Auto-ignition temperature	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Decomposition temperature	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.
Viscosity	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: pBEn-SBP-SET1a Vector	No specific test data related to reactivity available for this product or its ingredients.
	pBEn-SBP-SET1b Vector	No specific test data related to reactivity available for this product or its ingredients.
	pBEn-SBP-SET1c	No specific test data related to reactivity available for this product or its ingredients.
	pBEn-SBP-SET2a Vector	No specific test data related to reactivity available for this product or its ingredients.
	pBEn-SBP-SET2b	No specific test data related to reactivity available for this product or its ingredients.
	pBEn-SBP-SET2c	No specific test data related to reactivity available for this product or its ingredients.
	pBEn-SBP-SET3a Vector	No specific test data related to reactivity available for this product or its ingredients.

Section 10. Stability and reactivity

	pBEn-SBP-SET3b Vector	No specific test data related to reactivity available for this product or its ingredients.
	pBEn-SBP-SET3c	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
10.5 Incompatible materials	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

	pBEn-SBP-SET3b Vector	materials. May react or be incompatible with oxidizing materials.
	pBEn-SBP-SET3c	May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: pBEn-SBP-SET1a Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBEn-SBP-SET1b Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBEn-SBP-SET1c	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBEn-SBP-SET2a Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBEn-SBP-SET2b	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBEn-SBP-SET2c	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBEn-SBP-SET3a Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBEn-SBP-SET3b Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBEn-SBP-SET3c	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	: pBEn-SBP-SET1a Vector	Not available.
	pBEn-SBP-SET1b Vector	Not available.
	pBEn-SBP-SET1c	Not available.
	pBEn-SBP-SET2a Vector	Not available.
	pBEn-SBP-SET2b	Not available.
	pBEn-SBP-SET2c	Not available.
	pBEn-SBP-SET3a Vector	Not available.
	pBEn-SBP-SET3b Vector	Not available.
	pBEn-SBP-SET3c	Not available.

Potential acute health effects

Eye contact	: pBEn-SBP-SET1a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1c	No known significant effects or critical hazards.
	pBEn-SBP-SET2a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET2b	No known significant effects or critical hazards.
	pBEn-SBP-SET2c	No known significant effects or critical hazards.
	pBEn-SBP-SET3a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3c	No known significant effects or critical hazards.
Inhalation	: pBEn-SBP-SET1a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1c	No known significant effects or critical hazards.
	pBEn-SBP-SET2a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET2b	No known significant effects or critical hazards.
	pBEn-SBP-SET2c	No known significant effects or critical hazards.
	pBEn-SBP-SET3a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3c	No known significant effects or critical hazards.
Skin contact	: pBEn-SBP-SET1a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1c	No known significant effects or critical hazards.
	pBEn-SBP-SET2a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET2b	No known significant effects or critical hazards.
	pBEn-SBP-SET2c	No known significant effects or critical hazards.
	pBEn-SBP-SET3a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3c	No known significant effects or critical hazards.
Ingestion	: pBEn-SBP-SET1a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET1c	No known significant effects or critical hazards.
	pBEn-SBP-SET2a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET2b	No known significant effects or critical hazards.
	pBEn-SBP-SET2c	No known significant effects or critical hazards.
	pBEn-SBP-SET3a Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3b Vector	No known significant effects or critical hazards.
	pBEn-SBP-SET3c	No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Inhalation	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Skin contact	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Ingestion	: pBEn-SBP-SET1a Vector pBEn-SBP-SET1b Vector pBEn-SBP-SET1c pBEn-SBP-SET2a Vector pBEn-SBP-SET2b pBEn-SBP-SET2c pBEn-SBP-SET3a Vector pBEn-SBP-SET3b Vector pBEn-SBP-SET3c	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Section 11. Toxicological information

Not available.

Section 12. Ecological information

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized 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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

Regulatory information

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

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

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
Clean Water Act (CWA) 311: Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

No products were found.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

No products were found.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)


Not listed.

Section 15. Regulatory information

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Inventory list](#)

Australia	: All components are listed or exempted.
Canada inventory	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	:  Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Turkey	: Not determined.

Section 16. Other information

[History](#)

Date of issue	: 04/21/2017
Date of previous issue	: 09/29/2016.
Version	: 5

 Indicates information that has changed from previously issued version.

[Notice to reader](#)

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