

Section 1 Identification of the mixture and of the Company	
1.1	Product identifier
	Product Name ReVok ^{BTK}
	Synonyms Thuricide HPC
1.2	Relevant identified uses of the mixture and uses advised against
	Use of the product Bioinsecticide
	Uses advised against N/A
1.3	Details of the supplier of the Safety Data Sheet
	Supplier Sylvar Technologies Inc.
	Address 1350 Regent Street Fredericton, New Brunswick Canada E3C 2G6
	Phone +1 (506) 444-5690
	E-mail info@sylvar.ca
1.4	Emergency Telephone Number
	Phone (medical) 1-888-870-6444
Section 2 Hazards Identification	
2.1	Classification of the mixture
	Not Classified; No hazardous components
2.2	Label elements
	IN THE CASE OF EYE CONTACT: Rinse cautiously with water for several minutes. Removing existing contact lenses if possible. Continue rinsing. Keep out of the reach of children. Store locked up. To avoid risks to human health and the environment, comply with the instructions for use. Contains <i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i> spores. May produce allergic reaction. Potential Sensitizer; avoid breathing vapors or spray mist CAUTION – Eye irritant
2.3	Other hazards
	This mixture does not contain any substances, which are persistent, bioaccumulative and toxic (PBT). This mixture does not contain any substance which are very persistent, and bioaccumulative (vPvB).
Section 3 Composition/Information on Ingredients	
3.1	Substances
	This product is a mixture
3.2	Mixtures
	<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i> strain SA-12 spores in a carrier. No hazardous component.
Section 4 First Aid Measures	
4.1	Description of first aid measures

General Notes	Change any contaminated or wetted clothing at once. If poisoning occurs contact a doctor. Have product container or label when seeking treatment.
Following Inhalation	Move to fresh air, rest, half upright position, loosen clothing. Oxygen or artificial respiration if there is difficulty in breathing. Seek medical advice after significant exposure. Treat symptomatically is advised.
Following skin contact	Remove contaminated clothing. Seek medical advice if irritation develops. Wash clothes before reuse. After contact with skin, wash immediately with plenty of water.
Following eye contact	Rinse thoroughly with plenty of water for several minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Remove contact lenses after first 5 minutes of rinsing, continue rinsing.
Following ingestion	No typical symptoms and affects known
Advice to physician	Treat symptomatically
4.2	Most important symptoms and effect, both acute and delayed No typical symptoms and effects known.
4.3	Indication of any immediate medical attention and special treatment needed. None

Section 5 Firefighting measures

5.1	Extinguishing media	
	Suitable extinguishing media	None specified
	Unsuitable extinguishing media	None specified
5.2	Special hazards arising from the mixture	Carbon monoxide, carbon dioxide
5.3	Advice for firefighters	None

Section 6 Accidental release measures

6.1	Personal precautions, protective equipment and emergency procedures	Use protective clothing, gloves, safety goggles and boots. Do not inhale.
6.2	Environmental precautions	Prevent entry into drains, waters, sewages, etc. of the product; contact immediately the municipal technical management if the product enters such bodies.
6.3	Methods and material for containment and cleaning up	For small spills soak up with kitty litter or a similar absorbent material. Place into a sealed container and dispose of according to Federal and provincial laws.
6.4	Reference to other sections	See personal protective equipment under Section 8 of SDS.

Section 7 Handling and Storage

7.1 Precautions for safe handling

The usual precautions for handling chemicals should be observed. Ensure adequate ventilation when handling. Respiratory protection is recommended. Avoid contact with eyes or clothing. Avoid breathing in vapors or spray mist.

7.2 Conditions for safe storage, including any incompatibilities

Must be stored under cool, dry conditions. Activity may be impaired by storage at temperatures above 32°C.

7.3 Specific end use(s)

Bioinsecticide

Section 8 Exposure controls/personal protection

8.1 Control parameter

The usual precautionary measures for handling chemicals should be observed. Provide adequate ventilation.

8.2 Exposure controls

Eye/Face Protection

Use goggles or a face shield

Skin Protection

Use Protective Clothing

Respirator Protection

A NIOSH approved mist filtering mask or respirator with any N-95, P-95 or R-95 filter.

Thermal Hazards

No specific recommendations

Other information

None

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State

Liquid

Color

Brown

Odor

Yeasty

Odor Threshold

Not determined

pH

4.8-5.2

Melting point/freezing point

Not determined

Initial boiling point and boiling range

Not determined

Flash Point

Not determined

Evaporation Rate

Not determined

Flammability

Not flammable

Upper/Lower flammability or explosive limits

Not flammable

Vapor Pressure

Not determined

Vapor Density

Not determined

Relative Density

8.4 lb./gal.

Solubility(ies)

Not determined

Partition coefficient: n-cotanol/water

Not determined

Auto-ignition temperature

Not determined

Decomposition temperature	Not determined
Viscosity	Not determined
Explosive Properties	None known
Oxidising properties	None known

9.2 Other Information

None

Section 10 Stability and Reactivity

10.1 Reactivity

Not reactive

10.2 Chemical stability

No decomposition if stored and handled properly. Stable

10.3 Possibility of hazardous reactions

None known

10.4 Conditions to avoid

None known

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products

None known

Section 11 Toxicological Information

11.1 Information of toxicological effects

Acute toxicity	Not toxicity or infectivity
Skin corrosion/irritation	Not toxicity or infectivity but slightly irritating.
Serious eye damage/irritation	Mildly irritating
Respiratory or skin sensitization	Not required
Germ cell mutagenicity	Not determined
Carcinogenicity	Not applicable
Reproductive toxicity	Not classified
STOT-single exposure	Not existing
STOT-repeated exposure	Not existing
Aspiration hazard	Not relevant

Section 12 Ecological Information

12.1 Toxicity

Acute (short-term) toxicity

Fish	<i>Oncorhynchus mykiss</i> , LC ₅₀ >1x10 ⁸ CFU/mL
Crustacea	<i>Daphnia magna</i> , EC ₅₀ >1x10 ⁸ CFU/mL
Algae/aquatic plants	Not determined
Other organisms	Northern Bobwhite, LC ₅₀ >3.86x10 ⁹ CFU/kg body weight <i>Apis mellifera</i> L, Not active on honey bees

Chronic (long-term) toxicity

Fish	Not determined
Crustacea	Not determined
Algae/aquatic plants	Not determined

	Other organisms	Not determined
12.2	Persistence and degradability	
	Abiotic Degradation	Not determined
	Physical and photo-chemical elimination	<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i> (Btk) show a rapid loss of activity in response to UV light
	Biodegradation	Biodegradables
12.3	Bioaccumulative potential	
	Octanol/water partition coefficient (Kow)	Not determined
	Bioconcentration factor (BCF)	Not determined
12.4	Mobility in Soil	
	Known or predicted distribution to environmental compartments	Low based on scientific data for Btk.
	Surface tension	Not determined
	Absorption/desorption	Not determined
12.5	Results of PBT and vPvB assessment	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
12.6	Other adverse effects	None
12.7	Additional information	None
Section 13 Disposal considerations		
13.1	Waste treatment methods	
	Product/Packaging disposal	Triple-or pressure rinse the empty container. Add the rinsings to the spray mixture in the tank. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for use. Dispose of the container in accordance with provincial regulations. For information on disposal of unused, unwanted product, contact the supplier or the provincial regulatory agency. Contact the supplier or the provincial regulatory agency in cause of a spill, and for clean-up of spills.
	Waste codes/waste designations according to LoW	Not applicable
	Waste treatment-relevant information	None
	Sewage disposal-relevant information	Waste should not be disposed of by release to sewers
	Other disposal Recommendations	None

Section 14 Transport Information

Inland Transportation	Not restricted
Sea Transportation	Not restricted
Air Transportation	Not restricted

Section 15 Regulatory Information

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

Authorizations	Not relevant
Restrictions on use	Not relevant

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

Section 16 Other Information

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for their special use of this product.

Indication of Changes

Date of Review
Composed by

January 23, 2018
Laura Forbes, Regulatory Affairs Manager
Sylvar Technologies Inc.