Cevac IBron®

Safety Data Sheets:

Cevac IBron® & Nitrogen, Cryogenic Liquid

Ceva Animal Health, LLC • 8735 Rosehill Road, Ste. 300 • Lenexa, KS 66215
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CEVAC IBron®
Safety Data Sheet

Complies with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.
Revision date : November 10, 2015 Supersedes: Not Applicable

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : CEVAC IBron®, Bronchitis Vaccine, GeorgiaType, Live

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

Use of the substance/mixture : CEVAC IBron® Bronchitis vaccine contains serotype Georgia (GA) of Infectious Bronchitis Virus (IBV). This vaccine is recommended for use in chickens to aid in the prevention of bronchitis caused by IBV GA08 and as an aid in the reduction of bronchitis caused by IBV GA13.

1.3. Details of the supplier of the safety data sheet

Ceva BIOMUNE
8906 Rosehill Rd.
Lenexa, Kansas 66215
(913) 894-0230

1.4. Emergency telephone number

Country	Official advisory body / Company	Address	Emergency number
UNITED STATES	Infotrac	-	1-800-535-5053
INTERNATIONAL	Infotrac	-	1-352-323-3500

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labeling applicable

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions. This product is stored in liquid nitrogen (LN_2). Follow all precautions regarding the use and handling of LN_2. A LN_2 SDS is attached.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
IBV, GA serotype	Not applicable	Varies	Not applicable
Gentamicin, sulfate	(CAS No) 1405-41-0	*	Respiratory sensitization (Category 1), H334 Skin sensitization (Category 1), H317
Amphotericin B	$C_{47}H_{73}NO_{17}$	*	No components need to be disclosed according to the applicable regulations.
Stabilizer	Not applicable	Varies	Not applicable
Tryptose Soy Broth	Not applicable	Varies	*The product is not classified according to the Globally Harmonized System (GHS).*

*Chemicals are present in a concentration less than 1% which is below the cut off limit according to §1910.1200

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove to fresh air and provide oxygen if necessary. If any trouble breathing, get immediate medical attention. If irritation or symptoms occur or persist, consult a doctor.

First-aid measures after skin contact : In the event of accidental injection, rinse immediately with plenty of water and seek medical attention if irritation develops.

First-aid measures after eye contact : In case of contact, rinse immediately with plenty of water and seek medical attention if irritation develops.

First-aid measures after ingestion : Rinse mouth and drink a glass of water. If irritation or symptoms occur or persist, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after skin contact : None to our knowledge.

Symptoms/injuries after eye contact : None to our knowledge.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. Polyvalent powders. Carbon dioxide (CO_2).

Unsuitable extinguishing media : None

5.2. Special hazards arising from the chemicals

Fire hazard : No specific hazardous decomposition products known.

Reactivity : To our knowledge, the product does not present any particular risk, under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions : None

Protection during firefighting : None

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : No specific precautions.
Individual washing routines should be followed after any potential contact.

6.1.2. For emergency responders

Protective equipment : Apply the same recommendations as section 6.1.1.

6.2. Environmental precautions

Do not allow product to spread into the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : In the case of broken glass, carefully sweep up and remove any debris. Dispose of the debris in a sharps container or a container marked for disposal of broken glass. Wash the area with soap and water.

Methods for cleaning up : In the case of a liquid spill, contain the spill and clean the area with bleach.

Other information : The vaccine is stored in Liquid Nitrogen (LN_2). Follow all precautions regarding the use and handling of LN_2. A LN_2 SDS is attached.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Follow good vaccination procedures. Refer to packaging for complete directions.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in Liquid Nitrogen.

Incompatible materials : Strong acids. Strong bases. Strong oxidizing agents.

Special rules on packaging : Refer to packaging for complete directions.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

The mixture is not classified for Health hazards: use aseptic technique

Hand protection : Protective gloves are recommended.

Eye protection : Safety glasses.

Skin and body protection : Cryogenic Personal Protective Equipment (See LN_2 SDS)

Respiratory protection : Air Mask while spraying vaccine

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Yellowish
Odour	:	No perceptible odor.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Non flammable
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	Very Soluble
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	Not explosive.
Oxidising properties	:	Non oxidizing material
Explosive limits	:	No data available

9.2. Other information

None

SECTION 10: Stability and reactivity

10.1. Reactivity

To our knowledge, the product does not present any particular risk, under normal conditions of use.

10.2. Chemical stability

Keep product in liquid nitrogen.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

Keep product in liquid nitrogen.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

None

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	:	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	:	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	:	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	:	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	:	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	:	Not classified (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Do not allow the product to be released into the environment.

12.2. Persistence and degradability

Persistence and degradability	Low surviablity in the environment.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Incinerate unused vaccine and vials.

Additional information : None

SECTION 14: Transport information

In accordance with DOT

Not classified as a dangerous good for transport

Additional information

Other information : No supplementary information available.

None

Transport document description : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Not classified as a hazardous or toxic

15.2. International regulations

CANADA

Not classified as a hazardous or toxic

EU-Regulations

Not classified as a hazardous or toxic

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified as a hazardous or toxic

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified as a hazardous or toxic

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive toxicity

SECTION 16: Other information

Data sources : SDS of suppliers.

HMIS III Rating

Health : 0 Minimal Hazard

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

Personal Protection : E, Please refer to LN_2 SDS for relevant personal protection.

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

MATHESON
ask. . .The Gas Professionals™

Safety Data Sheet

Material Name: NITROGEN, CRYOGENIC LIQUID **SDS ID: 00202589**

* * * Section 1 - PRODUCT AND COMPANY IDENTIFICATION* * *

Material Name: NITROGEN, CRYOGENIC LIQUID

Manufacturer Information

MATHESON TRI-GAS, INC.
150 Allen Road, Suite 302
Basking Ridge, NJ 07920

General Information: 1-800-416-2505
Emergency #: 1-800-424-9300 (CHEMTREC)
Outside the US: 703-527-3887 (Call collect)

Chemical Family

non-metallic

Synonyms

MTG MSDS 164; NITROGEN, REFRIGERATED LIQUID; NITROGEN, REFRIGERATED LIQUID, CRYOGENIC LIQUID; NITROGEN; NITROGEN (LIQUID); LIQUID NITROGEN; UN 1977; N2

Product Use

industrial

Usage Restrictions

None known.

* * * Section 2 - HAZARDS IDENTIFICATION* * *

EMERGENCY OVERVIEW

Color: colorless
Physical Form: liquefied gas
Odor: odorless
Health Hazards: difficulty breathing
Physical Hazards: Containers may rupture or explode if exposed to heat.

POTENTIAL HEALTH EFFECTS

Inhalation

Short Term: nausea, vomiting, dizziness, tingling sensation, suffocation, convulsions, coma
Long Term: no information on significant adverse effects

Skin

Short Term: blisters, frostbite
Long Term: no information on significant adverse effects

Eye

Short Term: frostbite, blurred vision
Long Term: no information on significant adverse effects

Ingestion

Short Term: frostbite
Long Term: no information is available

* * * Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percent

7727-37-9	NITROGEN, CRYOGENIC LIQUID	100.0

* * * Section 4 - FIRST AID MEASURES* * *

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin

If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

Eyes

For freezing, frostbite or cryogenic burns, open eyelids wide to allow liquid to evaporate. Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion

If swallowed, get medical attention.

Note to Physicians

For inhalation, consider oxygen.

* * * Section 5 - FIRE FIGHTING MEASURES* * *

See Section 9 for Flammability Properties

NFPA Ratings: Health: 3 **Fire:** 0 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Negligible fire hazard. Containers may rupture or explode if exposed to heat.

Extinguishing Media

Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media

Do not direct water at source of leak or safety devices; icing may occur.

Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Damaged cylinders should be handled only by specialists. Stay away from the ends of tanks.

* * * Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Occupational spill/release

Do not touch spilled material. Stop leak if possible without personal risk. Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

* * * Section 7 - HANDLING AND STORAGE* * *

Handling Procedures

Wear cold insulating gloves/face shield/eye protection.

Storage Procedures

Store and handle in accordance with all current regulations and standards. Protect from physical damage. Inside storage: Store in a well-ventilated area. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

* * * Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Analysis

ACGIH, OSHA and NIOSH have not developed exposure limits for any of this product's components.

Component Biological Limit Values

There are no biological limit values for any of this product's components.

Ventilation

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Wear splash resistant safety goggles with a faceshield. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing

For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.

Glove Recommendations

Wear insulated gloves.

Respiratory Protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.
Respiratory protection is ranked in order from minimum to maximum.
Consider warning properties before use.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

* * * Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:	Gas	**Appearance:**	colorless, gas
Color:	colorless	**Physical Form:**	liquefied gas
Odor:	odorless	**Odor Threshold:**	Not available
Taste:	tasteless	**pH:**	Not available
Melting/Freezing Point:	-210 °C	**Boiling Point:**	-196 °C
Flash Point:	Non-flammable	**Decomposition:**	Not available
Evaporation Rate:	Not available	**LEL:**	Not available
UEL:	Not available	**Vapor Pressure:**	760 mmHg @ -196 °C
Vapor Density (air = 1):	0.967	**Specific Gravity (water=1):**	0.8081 @ -196 °C
Water Solubility:	1.6 % @ 20 °C	**Log KOW:**	0.67
Auto Ignition:	Not available	**Viscosity:**	0.292 cP @-209 °C
Volatility:	100 %	**Molecular Weight:**	28.0134
Molecular Formula:	N2		

Solvent Solubility

Soluble: liquid ammonia

Slightly Soluble: alcohol

* * * Section 10 - STABILITY AND REACTIVITY* * *

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. Avoid contact with water or moisture.

Materials to Avoid

metals, oxidizing materials

Decomposition Products

oxides of nitrogen

Possibility of Hazardous Reactions

Will not polymerize.

* * * Section 11 - TOXICOLOGICAL INFORMATION* * *

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

Medical Conditions Aggravated by Exposure

No data available.

Tumorigenic

No data available.

Mutagenic

No data available.

Reproductive Effects

No data available.

* * * Section 12 - ECOLOGICAL INFORMATION* * *

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

* * * Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

* * * Section 14 - TRANSPORT INFORMATION* * *

US DOT Information

Shipping Name: Nitrogen, refrigerated liquid
UN/NA #: UN1977 **Hazard Class:** 2.2
Required Label(s): 2.2

TDG Information

Shipping Name: Nitrogen, refrigerated liquid
UN #: UN1977 **Hazard Class:** 2.2
Required Label(s): 2.2

* * * Section 15 - REGULATORY INFORMATION* * *

U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA 311/312

Acute Health: Yes **Chronic Health:** No **Fire:** No **Pressure:** Yes **Reactive:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
NITROGEN, CRYOGENIC LIQUID	7727-37-9	No	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
NITROGEN, CRYOGENIC LIQUID	7727-37-9	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes

* * * Section 16 - OTHER INFORMATION* * *

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EIN (EINECS) - European Inventory of Existing Commercial Chemical Substances; ELN (ELINCS) - European List of Notified Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RTECS - Registry of Toxic Effects of Chemical Substances®; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information

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