



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND OF COMPANY/UNDERTAKING

MANUFACTURER:

Dominion Biologicals Limited
5 Isnor Drive
Dartmouth, Nova Scotia, Canada B3B 1M1
PHONE: 902-468-3992
FAX: 902-468-3599

AUTHORIZED REPRESENTATIVE (Europe):

IMMUCOR Medizinische Diagnostik GmbH
Adam-Opel Strasse 26A
D-63322 Rödermark, GERMANY
PHONE: 011-49-6074-84200

This Material Safety Data Sheet is for the following products:

Product Name	Product Code	Size
NOVACLONE™ Anti-A Murine Monoclonal	5170012	10 ml
NOVACLONE™ Anti-A Murine Monoclonal	5170022	10x10 ml
NOVACLONE™ Anti-A Murine Monoclonal (Galileo)	5170011	10 ml
NOVACLONE™ Anti-A Murine Monoclonal (Galileo)	5170021	10x10 ml
NOVACLONE™ Anti-B Murine Monoclonal	5175012	10 ml
NOVACLONE™ Anti-B Murine Monoclonal	5175022	10x10 ml
NOVACLONE™ Anti-B Murine Monoclonal (Galileo)	5175011	10 ml
NOVACLONE™ Anti-B Murine Monoclonal (Galileo)	5175021	10x10 ml
NOVACLONE™ Anti-A,B Murine Monoclonal	5185012	10 ml
NOVACLONE™ Anti-A,B Murine Monoclonal	5185022	10x10 ml
NOVACLONE™ Anti-A,B Murine Monoclonal (Galileo)	5185011	10 ml
NOVACLONE™ Anti-A,B Murine Monoclonal (Galileo)	5185021	10x10 ml
NOVACLONE™ Anti-D IgM + IgG Monoclonal Blend	5350012	10 ml
NOVACLONE™ Anti-D IgM + IgG Monoclonal Blend	5350022	10x10 ml
NOVACLONE™ Anti-D IgM + IgG Monoclonal Blend (Galileo)	0066036	10 ml
NOVACLONE™ Anti-D IgM + IgG Monoclonal Blend (Galileo)	0066037	10x10 ml
NOVACLONE™ Anti-C II (RH2) Human Monoclonal IgM Rh Typing Reagent	5367012	10 ml
NOVACLONE™ Anti-E (RH3) Human Monoclonal IgM Rh Typing Reagent	5371012	10 ml
NOVACLONE™ Anti-c (RH4) Human Monoclonal IgM Rh Typing Reagent	5376012	10 ml
NOVACLONE™ Anti-e (RH5) Human Monoclonal IgM Rh Typing Reagent	5381012	10 ml
NOVACLONE™ Diluent Control	5100012	10 ml
NOVACLONE™ Diluent Control	5100022	10x10 ml
NOVACLONE™ Diluent Control (Galileo)	5100011	10 ml
NOVACLONE™ Diluent Control (Galileo)	5100021	10x10 ml
NOVACLONE™ Anti-IgG-C3d Polyspecific Murine Monoclonal Blend	5441013	10 ml
NOVACLONE™ Anti-IgG-C3d Polyspecific Murine Monoclonal Blend	5441023	10x10 ml
NOVACLONE™ Anti-IgG-C3d Polyspecific (Green) Murine Monoclonal Blend	5451013	10 ml
NOVACLONE™ Anti-IgG-C3d Polyspecific (Green) Murine Monoclonal Blend	5451023	10x10 ml
NOVACLONE™ Anti-IgG Murine Monoclonal Blend	5461013	10 ml
NOVACLONE™ Anti-IgG Murine Monoclonal Blend	5461023	10x10 ml
NOVACLONE™ Anti-IgG Murine Monoclonal Blend (Green)	5470013	10 ml
NOVACLONE™ Anti-IgG Murine Monoclonal Blend (Green)	5470023	10x10 ml
NOVACLONE™ Anti-C3d Murine Monoclonal	5491053	3 ml
Anti-M*	0673	5 ml

* The **NOTES** in Section 3 and Section 11 apply to these products.

RECOMMENDED USE:

Intended to be used in the detection and identification of certain properties of cell and serum components of blood prior to transfusion.



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2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENTS</u>	<u>CAS NUMBER</u>	<u>CONCENTRATION</u>	<u>OSHA PEL-TWA</u>	<u>ACGIH-TWA TLV</u>	<u>ACGIH-STEL/CEIL(C)</u>
Bovine Albumin	9048-46-8	1-12%	N/A	N/A	N/A
Pluronic F68	9003-11-6	0-1.0%	N/A	N/A	N/A
Glycine	56-40-6	0-2.0%	N/A	N/A	N/A
Sodium Azide	26628-22-8	0.1%	N/A	N/A	C 0.11 as HN ₃ vapor C 0.29 as NaN ₃

3. HAZARDS IDENTIFICATION

INHALATION: May cause irritation to respiratory tract and mucous membranes, sore throat, coughing, dizziness, shortness of breath and fainting. May be absorbed through inhalation.

INGESTION: May cause breathlessness, pulmonary edema and rapid heartbeat within 5 minutes. Nausea, vomiting, headache, restlessness and diarrhea may occur within 15 minutes. Other symptoms may include low blood pressure, abnormal breathing, reduced body temperature, reduced body pH, convulsions, collapse and death.

EYE CONTACT: Causes irritation, redness, pain and blurred vision.

SKIN CONTACT: Causes redness, irritation and pain. May be absorbed through skin.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED: None known.

NOTE: All blood products should be treated as potentially infectious. Source material from which this product was derived was found negative when tested in accordance with current FDA required tests. No known test methods can offer assurance that products derived from human blood will not transmit infectious agents.

4. FIRST AID MEASURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

INGESTION: *DO NOT* induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

SKIN CONTACT: Wipe off affected area and flush with plenty of soap and water for 15 minutes. Remove contaminated clothing and shoes. Seek medical attention. Wash clothing and shoes thoroughly before reuse.

5. FIRE-FIGHTING MEASURES

ESTIMATED EXPLOSIVE LIMITS (% By volume in air): LEL: N/A UEL: N/A FLASH POINT: N/A

EXTINGUISHING MEDIA: Use appropriate extinguishing media for surrounding fire: dry chemical, carbon dioxide, water spray or regular foam.

SPECIAL FIRE FIGHTING PROCEDURES: Wear appropriate personal protective equipment. Fight fires only if properly trained. Move containers from fire area if it can be accomplished without risk. Use water to keep containers cool. Dike fire control water.

UNUSUAL HAZARDS: Avoid breathing vapors or dusts. Keep upwind.



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6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. Do not touch spilled material. Stop the release if you can do it without risk. Isolate the area and deny entry. Absorb the spill and place used absorbent material into approved containers for later disposal. Decontaminate the area with an approved disinfectant. Cover the area with paper towels and pour disinfectant over the area. Wipe the area until clean and dry.

7. HANDLING AND STORAGE

HANDLING: Food and drink should not be consumed or tobacco products used, nor cosmetics applied in areas where chemicals are stored or handled.

STORAGE: Store away from incompatible substances. Store in tightly closed containers. Avoid contact with open wounds and body fluids. Wash thoroughly after handling and before eating, drinking or smoking. Observe, federal, provincial and local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Use chemical safety goggles and/or full face shield where splashing of the solution is possible. Maintain eyewash fountain and quick drench facilities in the work area.

CLOTHING/GLOVES: Clothing such as gowns, aprons, or lab coats should be worn when working with this material. Protective gloves should be worn while handling materials and/or surfaces, which are potentially infectious.

HEAD/ FOOT PROTECTION: Hood, surgical caps, boots and shoe covers should be worn in areas with significant quantities of infectious materials.

RESPIRATORY PROTECTION: A NIOSH/MSHA approved respirator should be worn where airborne exposures may exceed OSHA/ACGIH exposure limits.

VENTILATION: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below permissible air concentrations.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 100 °C (212 °F) SPECIFIC GRAVITY: 1 (H₂O=1) pH: 6-8

MELTING POINT: 0 °C (32 °F) % VOLATILE BY WEIGHT: N/A

VAPOR PRESSURE: 18 mm Hg EVAPORATION RATE: N/A

VAPOR DENSITY: N/A (Air=1) SOLUBILITY IN WATER: N/A

VOLATILE ORGANIC COMPOUNDS (VOC): 0 lbs/gal (EPA Ref. Methods 24)

APPEARANCE/ODOR: All products are a clear light amber liquid except:
NOVACLONE™ Anti-A – clear blue liquid
NOVACLONE™ Anti-B – clear yellow liquid
NOVACLONE™ Anti-IgG Green – clear green liquid
NOVACLONE™ Anti-IgG-C3d Green – clear green liquid

10. STABILITY AND REACTIVITY

STABILITY: Stable CONDITIONS TO AVOID: Fire and excessive heat. May decompose in heat

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY: Benzoyl chloride, potassium hydroxide, bromine, carbon disulfide, chromyl chloride, copper, dibromomalononitrile, dimethyl sulfate, lead, barium carbonate, sulfuric acid, nitric acid, strong acids and substances that react violently with water.

HAZARDOUS DECOMPOSITION PRODUCTS: Sodium azide when heated to decomposition liberates nitrogen gas and can cause an explosion. Carbon dioxide and carbon monoxide may form when bovine albumin is heated to decomposition.



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11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS: The substance irritates the eyes, the skin and the respiratory tract. Exposure above Occupational Exposure Limits could cause effects on the nervous system.

CHRONIC EFFECTS: No information found.

LISTED CARCINOGENS: None

NOTE: This product is manufactured from human blood and therefore must be considered to be capable of transmitting disease.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Disposal must be at an approved waste disposal facility and in accordance with applicable federal, provincial and local laws and regulations.

14. TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: N/A HAZARD CLASS: N/A ID#: N/A PACKING GROUP: N/A

15. REGULATORY INFORMATION

Symbol: Xn  R-Phrase: 22 S-Phrases: N/A

TSCA: All components of this product are listed on the TSCA inventory.

SARA Title III: Section 302: None

CERCLA REPORTABLE QUANTITY: None

Section 312: None

CLEAN AIR AMENDMENTS-HAZARDOUS AIR POLLUTANTS (HAPS): None

Section 313: None

16. OTHER INFORMATION

The information contained herein is based on data considered accurate and is offered at no charge. No warranty is expressed or implied regarding the accuracy of this data. Liability is expressly disclaimed for loss or injury arising out of use of this information or the use of any materials designated.