

Order Number
Customer Number

1. Product and Company Identification

Supplier	Manufactured by EMD Biosciences, Inc. 441 Charmany Drive Madison, WI 53719 (608)238-6110 (800)207-0144 FAX: (608)238-1388 P.O. Box 12087 La Jolla, CA 92039-2087 (858)450-5558 (800)854-3417 FAX: (858)453-3552	Catalog #	70181
		In Case of Emergency	Call Chemtrec® (800)424-9300 (within U.S.A.) (703)527-3887 (outside U.S.A.)

Product name NovaBlue Singles™ Competent Cells

2. Composition and Information on Ingredients

Ingredient Name	CAS No.	Product No.	EU Symbol	R-Phrases
Dimethyl Sulfoxide	67-68-5	RC1120	Xi	R36/38

Note: See section 8 for occupational exposure limits and section 11 for LC50/LD50 information.

3. Hazards Identification

Primary Hazards and Critical Effects	: RC1120	CAUTION! CAUSE EYE AND SKIN IRRITATION. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.	MAY
Physical/Chemical hazards	: :	Not applicable.	
Human Health Hazards	: RC1120	Irritating to eyes and skin.	
Environmental Hazards	: :	Not applicable.	

4. First Aid Measures

Inhalation	: RC1120	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	: RC1120	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Skin Contact	: RC1120	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Eye Contact	: RC1120	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Notes to Medical Doctor	: :	Not available.

5. Fire-Fighting Measures

Extinguishing Media	: Use foam or all purpose dry chemicals to extinguish.
Fire-Fighting Procedures	: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Fire/Explosion Hazards	: Not applicable.
Hazardous Decomposition Products	: These products are carbon oxides (CO, CO2), sulfur oxides (SO2, SO3...).

6. Accidental Release Measures

Personal Precautions	:	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).
Environmental Precautions and Clean-up Methods	:	If emergency personnel are unavailable vacuum or carefully scoop up spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Minimize contact of spilled material with soils to prevent runoff to surface waterways.

Note: See section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and Storage

Handling	:	RC1120	Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
Storage	:		Keep container tightly closed. Keep container in a cool, well-ventilated area.
Packaging Materials	:		Use original container.

8. Exposure Controls and Personal Protection

Occupational Exposure Limits

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
RC1120	Not available.

Engineering Controls : RC1120 No special containment is required. Local exhaust ventilation should be provided.

Personal Protective Equipment

Respiratory System	:	RC1120	Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s).
Skin and Body	:	RC1120	Work uniform or laboratory coat.
Hands	:	RC1120	Use chemical resistant, impervious gloves. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits).
Eyes	:	RC1120	Safety glasses. Goggles, face shield, or other full-face protection if potential exists for direct exposure to aerosols or splashes.

9. Physical and Chemical Properties

Kit Components

11 rxn Kit
 69318: 1 x 10 ul Test Plasmid
 69319: 1 x 2 ml SOC Medium
 70181: 1 pack 11 NovaBlue Singles Competent Cells, containing Dimethyl Sulfoxide (RC1120)

22 rxn Kit
 69318: 1 x 10 ul Test Plasmid
 69319: 4 x 2 ml SOC Medium
 70181: 1 pack 22 NovaBlue Singles Competent Cells, containing Dimethyl Sulfoxide (RC1120)

Flash Point

Not available.

10. Stability and Reactivity

Stability	:	RC1120	The product is stable.
Conditions and Materials to Avoid	:	RC1120	Reactive with oxidizing agents, reducing agents, acids.
Hazardous Decomposition Products	:		Not available.

11. Toxicological Information

Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
RC1120	LD50	14500 mg/kg	Oral	Rat
	LD50	7920 mg/kg	Oral	Mouse
	LD50	>10000 mg/kg	Oral	Dog
	LD50	40000 mg/kg	Dermal	Rat
	LD50	50000 mg/kg	Dermal	Mouse
	LDLo	>11000 mg/kg	Oral	Guinea pig

Routes of Entry : Absorbed through skin. Dermal contact. Eye contact.

Acute Effects

Inhalation	:	Not available.
Ingestion	:	RC1120 Practically non-toxic if swallowed.
Skin Contact	:	RC1120 Moderately irritating to the skin. Practically non-toxic in contact with skin.
Eye Contact	:	RC1120 Moderately irritating to the eyes.

Chronic Effects

Adverse Effects	:	Not available.
Target Organs	:	Not available.
Carcinogenic Effects	:	Not available.
Mutagenic Effects	:	Not available.
Developmental and Teratogenic Effects	:	Not available.
Reproductive Effects	:	Not available.

Other Information : RC1120 Repeated or prolonged exposure is not known to aggravate medical condition.

12. Ecological Information

Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
RC1120	Not available.	Not available.	Not available.

13. Disposal Consideration

Waste Handling and Disposal : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information

Air

IATA-DGR Class : Not controlled under IATA.

Packing Group

15. Regulatory Information

EU Regulations

Hazard Symbol(s)	:	Xi
Risk Phrases	:	R36/38- Irritating to eyes and skin.
Safety Phrases	:	S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

US Regulations

Haz-Com Standard	:	Not controlled under the HCS (United States).
EPA	:	Not available.
State	:	Not available.

Canadian Regulations

WHMIS	:	Not controlled under WHMIS (Canada).
CEPA	:	No products were found.
Provincial	:	No products were found.

16. Other Information

Validated by jcw on 7/24/2003.

Version : 1.0

Date of Printing : 7/25/2003.

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

*Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. **This product is intended for research use only.***