

**Order
Number**

**Customer
Number**

1. Product and Company Identification

Supplier	Manufactured by EMD Biosciences, Inc. 10394 Pacific Center Court San Diego, CA 92121 (858)450-5558/(800)854-3417 FAX: (858)453-3552	Catalog #	490075
		In Case of Emergency	Call Chemtrec® (800)424-9300 (within U.S.A.) (703)527-3887 (outside U.S.A.)

Product name NOS Inhibitor Set

2. Composition and Information on Ingredients

Ingredient Name	CAS No.	Product No.	EU Symbol	R-Phrases
L-N ⁵ -(1-Iminoethyl)-ornithine, Dihydrochloride	N/A	490075-1	Xi	R36/37/38
7-Nitroindazole	2942-42-9	490075-2	T	R40, R60

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

3. Hazards Identification

Primary Hazards and Critical Effects	: 490075-1	CAUTION! MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.
	: 490075-2	CAUTION! POSSIBLE BIRTH DEFECT HAZARD. MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA. MAY CAUSE HERITABLE GENETIC EFFECTS BASED ON ANIMAL DATA. Avoid exposure during pregnancy.
Physical/Chemical hazards	:	Not applicable
Human Health Hazards	: 490075-1 490075-2	Irritating to eyes, respiratory system and skin. Possible risks of irreversible effects. May impair fertility.
Environmental Hazards	:	Not applicable

4. First Aid Measures

Inhalation	: 490075-1/2	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	: 490075-1/2	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately
Skin Contact	: 490075-1/2	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	: 490075-1/2	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), nitrogen oxides (NO, NO₂...), halogenated compounds.

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, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. 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** : 490075-1 Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.
490075-2 Avoid exposure during pregnancy
- 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

Ingredient Name

490075-1/2

Occupational Exposure Limits

Not available.

- Engineering Controls** : 490075-1 No special containment is required. Local exhaust ventilation should be provided.
490075-2 Open handling must be limited. Use local exhaust ventilation or handle in a ventilated enclosure.

Personal Protective Equipment

- Respiratory System** : 490075-1/2 Use an approved, properly fitted, HEPA filter cartridge respirator, or a respirator of greater protection if there is the potential to exceed the exposure limit(s).
- Skin and Body** : 490075-1 Work uniform or laboratory coat.
490075-2 Disposable outer garments when there is the potential for contact with the material.
- Hands** : 490075-1 Use latex gloves. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits).
490075-2 Use chemical resistant, impervious gloves. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits). Appropriate techniques should be used to remove potentially contaminated clothing.
- Eyes** : 490075-1/2 Safety glasses. Goggles, face shield, or other full-face protection if potential exists for direct exposure to dust.

9. Physical and Chemical Properties

Kit Components

20 mg L-N5-(1-Iminoethyl)ornithine, Dihydrochloride (490075-1)
10 mg S-Methyl-L-thiocitrullin, Hydrochloride
25 mg NG-Monomethyl-L-arginine, Monoacetate Salt
100 mg NG-Nitro-L-arginine Methyl Ester, Hydrochloride
100 mg NG-Nitro-D-arginine Methyl Ester, Hydrochloride
100 mg 7-Nitroindazole (490075-2)
10 mg L-Thiocitrulline

Flash Point

Not available.

10. Stability and Reactivity

Stability	: 490075-1/2	The product is stable.
Conditions and Materials to Avoid	: 490075-2	Reactive with oxidizing agents, acids.
Hazardous Decomposition Products	: 490075-1	These products are halogenated compounds.

11. Toxicological Information

Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
490075-1/2	Not available.	Not available.	Not available.	Not available.

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

Acute Effects

Inhalation	: 490075-1	Moderately irritating to the respiratory system.
Ingestion	:	Not available.
Skin Contact	: 490075-1	Moderately irritating to the skin.
Eye Contact	: 490075-1	Moderately irritating to the eyes.

Chronic Effects

Adverse Effects	:	Not available.
Target Organs	:	Not available.
Carcinogenic Effects	:	Not available.
Mutagenic Effects	: 490075-2	Classified POSSIBLE for human.
Developmental and Teratogenic Effects	: 490075-2	Teratogenic effects: Classified POSSIBLE for human.
Reproductive Effects	:	Not available.

Other Information : 490075-1
490075-2 Repeated or prolonged exposure is not known to aggravate medical condition.
Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

12. Ecological Information

Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
490075-1/2	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)** : T
- Risk Phrases** : R36/37/38- Irritating to eyes, respiratory system and skin.
R40- Possible risks of irreversible effects.
R60- May impair fertility.
- Safety Phrases** : S53- Avoid exposure - obtain special instructions before use.
S2- Keep out of the reach of children.
S36/37- Wear suitable protective clothing and gloves.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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 jew on 4/15/2003.

- Version** : 1.0
- Date of Printing** : 4/15/2003.

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