



**NANOLAB, INC.**  
179 Bear Hill Road  
Waltham, MA 02451  
Phone (781) 609 2722  
Fax (781) 609 2899  
<http://www.nano-lab.com>

Revised on 2012/10/15  
Revision no. 6

## MATERIAL SAFETY DATA SHEET

### SECTION 1. ----- CHEMICAL IDENTIFICATION-----

NAME: CARBON NANOTUBES, MULTI-WALL – APPLICABLE TO NANOLAB PRODUCT CODES:  
PD15L1-5, PD15L5-20, PD30L1-5, PD30L5-20, IG-CNT

### SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

CARBON NANOTUBES, >95%, CAS NUMBER: 308-068-56-6  
INORGANIC IMPURITIES <5%  
ALUMINUM OXIDE, CAS NUMBER: 1344-28-1  
IRON OXIDE, CAS NUMBER: 1345-25-1

### SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS IRRITANT IRRITATING TO EYES AND RESPIRATORY SYSTEM.  
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL  
ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING.

### SECTION 4. ----- FIRST-AID MEASURES-----

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A  
PHYSICIAN. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION.  
IF BREATHING IS DIFFICULT, GIVE OXYGEN. IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH  
SOAP AND COPIOUS AMOUNTS OF WATER. IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH EYES  
WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

### SECTION 5. ----- FIRE FIGHTING MEASURES -----

EXTINGUISHING MEDIA WATER SPRAY. CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE  
FOAM. SPECIAL FIREFIGHTING PROCEDURES WEAR SELF-CONTAINED BREATHING APPARATUS AND  
PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. COMBUSTION PRODUCTS  
INCLUDE OXIDES OF CARBON.

### SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, AND RUBBER GLOVES. SWEEP UP, PLACE IN A BAG  
AND HOLD FOR WASTE DISPOSAL. AVOID RAISING DUST. VENTILATE AREA AND WASH SPILL SITE  
AFTER MATERIAL PICKUP IS COMPLETE.

### SECTION 7. ----- HANDLING AND STORAGE-----

USE WITH ADEQUATE VENTILATION. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID  
INGESTION AND INHALATION. STORE IN A TIGHTLY CLOSED, LIGHT TIGHT CONTAINER.

### SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED. WASH THOROUGHLY AFTER  
HANDLING. DO NOT BREATHE DUST. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID  
PROLONGED OR REPEATED EXPOSURE. FOR NUISANCE EXPOSURE, USE NIOSH OR CEN APPROVED  
TYPE P95 (US) OR TYPE P1 (EU EN 143) PARTICLE RESPIRATOR. FOR HIGHER LEVEL PROTECTION, USE  
TYPE OV/AG/P99 (US) OR TYPE ABEK-P2 (EU EN 143) RESPIRATOR CARTRIDGES. COMPATIBLE  
CHEMICAL-RESISTANT GLOVES. CHEMICAL SAFETY GOGGLES. KEEP TIGHTLY CLOSED.  
OSHA PERMISSIBLE EXPOSURE LIMIT (PEL) FOR GENERAL INDUSTRY: 15MG/M<sup>3</sup> TWA



**SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----**

PHYSICAL STATE: POWDER

APPEARANCE: BLACK

ODOR: ODORLESS

MELTING POINT: NOT DETERMINED

PHYSICAL PROPERTIES SOLUBILITY: WATER-INSOLUBLE

**SECTION 10. ----- STABILITY AND REACTIVITY -----**

STABILITY: STABLE.

INCOMPATIBILITIES STRONG OXIDIZING AGENTS HAZARDOUS COMBUSTION OR DECOMPOSITION

PRODUCTS CARBON MONOXIDE, CARBON DIOXIDE HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

**SECTION 11. ----- TOXICOLOGICAL INFORMATION -----**

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED. MAY CAUSE SKIN IRRITATION. CAUSES EYE IRRITATION. MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

DATA NOT YET AVAILABLE.

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

NOT REGULATED

**SECTION 15. ----- REGULATORY INFORMATION -----**

EUROPEAN INFORMATION IRRITANT R 36/37 IRRITATING TO EYES AND RESPIRATORY SYSTEM.

S 26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

S 36 WEAR SUITABLE PROTECTIVE CLOTHING.

**SECTION 16. ----- OTHER INFORMATION -----**

THIS PRODUCT'S SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY, AND ENVIRONMENTAL REGULATIONS. THE INFORMATION CONTAINED HERE IN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THIS PRODUCT. SUCH CONDITIONS SHOULD COMPLY WITH ALL FEDERAL REGULATIONS CONCERNING THE PRODUCT. COPYRIGHT 2000 NANOLAB, INC. LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY

1. NANOLAB PRODUCTS ARE MANUFACTURED SOLELY FOR RESEARCH AND DEVELOPMENT.

2. ALL NANOLAB PRODUCTS ARE TO BE USED BY, OR DIRECTLY UNDER THE SUPERVISION OF, A TECHNICALLY QUALIFIED INDIVIDUAL.

3. ANYONE ENGAGED IN EXPERIMENTATION, RESEARCH, OR ANALYSIS OF NANOLAB PRODUCTS, INCLUDING THE PROCESSING, USE, TRANSPORT, STORAGE, AND DISPOSAL OF OUR PRODUCTS, SHOULD REVIEW OUR MSDS INFORMATION AND ALSO REVIEW AVAILABLE LITERATURE ON THE HEALTH AND SAFETY OF NANOMATERIALS AND CARBON NANOTUBES. NANOLAB HAS PLACED ON ITS WEBSITE, [HTTP://WWW.NANO-LAB.COM/SAFETY.HTML](http://www.nano-lab.com/safety.html) LINKS TO ALL OF THE HEALTH AND



SAFETY STUDIES OF WHICH IT IS AWARE. IF YOU ARE AWARE OF OTHER STUDIES WHERE NANOLAB NANOTUBES HAVE BEEN USED, PLEASE INFORM US AT [INFO@NANO-LAB.COM](mailto:INFO@NANO-LAB.COM)

PREVIOUS REVISION DATE: FEB 15, 2012