



1621 FISKE PLACE, OXNARD, CA 93033  
Phone (805) 486-4649, FAX (805) 205-1333  
www.catalyticsolutions.com

December 20th, 2011

Donald Owen  
DTSC  
1001 "I" Street, P.O. Box 806, 12 fl.  
Sacramento, CA  
95812-0806

**RE: Formal Request for Chemical Information and Analytical Test Methods for Specified Nanomaterials**

Dear Donald:

Enclosed you will find the completed forms. The sections highlighted in green must be kept trade secret and not made public. Please let me know if you have any questions.

Thank-you,

A handwritten signature in black ink, appearing to read "A.C.", written over a horizontal line.

**Alison Currie**  
Environmental, Health & Safety Manager  
Catalytic Solutions, Inc.  
Tel: (805) 486-4649 ext. 2916  
Fax: (805) 205-1378  
acurrie@catsolns.com

**STATE OF CALIFORNIA**  
**Department of Toxic Substances Control**

**Health and Safety Code Section 57019 Chemical Information Call-in Information**  
**for Nanometals, Nanometal Oxides, and Quantum Dots**  
**December 2010**

This enclosure is provided for your convenience. You may provide the requested information in writing, and attaching any supplementary materials or explanatory information, in letter or report form.

**SECTION A: CHEMICAL(S)** (check each one which applies for your company)

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Nano Silver           | <input type="checkbox"/> Nano Titanium Dioxide | <input checked="" type="checkbox"/> Nano Cerium Oxide |
| <input type="checkbox"/> Nano Zero Valent Iron | <input type="checkbox"/> Nano Zinc Oxide       | <input type="checkbox"/> Quantum Dot(s)               |

**SECTION B: BUSINESS IDENTIFICATION INFORMATION** (check one and complete items 1 - 10)

- |  |  |  |  |  |
|--|--|--|--|--|
| <input type="checkbox"/> Sole Owner            | <input checked="" type="checkbox"/> Corporation          | <input type="checkbox"/> Limited Liability Company (LLC) | <input type="checkbox"/> Limited Liability Partnership (LLP) | <input type="checkbox"/> Unincorporated Business Trust |
| <input type="checkbox"/> Spouses' Co-ownership | <input type="checkbox"/> Registered Domestic Partnership | <input type="checkbox"/> General Partnership             | <input type="checkbox"/> Limited Partnership                 | <input type="checkbox"/> Other: (describe)             |

1. Name of Sole Owner, Corporation, Partnership, Institution, Other.

CLEAN DIESEL TECHNOLOGIES, INC.

2. Business Trade Name ("Doing Business As," if any)

CATALYTIC SOLUTIONS, INC.

3. Business Address (physical location of your business: street number and name, city, state, country, zip or postal code)

1641 FISKE PLACE OXNARD CA 93033

4. Mailing Address (street name and number, P.O. box, city, state, country, zip or postal code, if different from 3)

1621 FISKE PLACE OXNARD CA 93033

5. Business Website Address(es):

WWW.CATALYTICSOLUTIONS.COM

6. Name of Owner, Responsible Corporate Officer, Partner, Other.

ALISON CURRIE

7. Contact Information for Person in 6 above.

Name: ALISON CURRIE

Title: EHS MANAGER

Business Telephone: (805) 486-4649 x2916

Email: ACURRIE@CATSOLNS.COM

8. Number of Employees (California employees).

56

9. NAICS Code(s) for this business:

Primary: 336399

Other:

Other:

10. Nano Chemical Business Type: (check applicable)

Manufacturer

Importer

Researcher

**SECTION C: CERTIFICATION (FOR THIS COMPLETE SUBMITTAL)**

I am duly authorized to prepare and submit this information, as a formal response to the request pursuant to Health and Safety Code section 57019(d)(1), and certify the information and statements made herein, and in the attachments, are correct to the best of my knowledge and belief.

Name: (type or print)

ALISON CURRIE

Signature:



Date:

12/15/11

**SECTION D: NANOMATERIAL CHEMICAL AND PHYSICAL PROPERTIES** (Attach additional pages as needed)

**PRODUCT / PRODUCTION INFORMATION**

NANO CHEMICAL NAME: (Use a separate page for each unique chemical.)

CERIA, NITRATE STABILIZED

COMMERCIAL NAME(S):

ANNUAL PRODUCTION VOLUME: UNKNOWN

PRODUCTION METHOD(S): UNKNOWN

IDENTIFICATION OF THE SUPPLIER(S):

PARAMETER	VALUE / RANGE <sup>2/</sup> (include units)	NAME OF ANALYTICAL METHOD(S) <sup>2/</sup>
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**PHYSICAL PROPERTIES**

SHAPE (MORPHOLOGY)	UNKNOWN	UNKNOWN
DENSITY	1220 Kg / M <sup>3</sup> or 26.3 BAUME	PR 10.0.1
SURFACE AREA	65 m <sup>2</sup> /g	BET NITROGEN ADSORPTION - AFTER CALCINING TO 500°C
PARTICLE SIZE DISTRIBUTION	Air	
	Liquid	UNKNOWN
	Solid / Powder	
OTHER (Specify)		NO RELIABLE METHOD TO ROUTINELY MEASURE PARTICLES OF THIS SIZE.

**CHEMICAL PROPERTIES**

CHEMICAL COMPOSITION	CERIUM OXIDE 20% WT ACETIC ACID 3% WT, WATER	PR 10.0.11	
SURFACE MODIFICATION (COATING, FUNCTIONALIZATION)	COLLOIDAL	N/A	
PURITY	19.6 - 20.4% CeO <sub>2</sub>	PR 10.0.11	
SURFACE CHARGE	POSITIVE	UNKNOWN	
DISPERSION <sup>2/</sup>	Air	UNKNOWN	
	Liquid	UNKNOWN	
	Solid	UNKNOWN	
IDENTIFYING AND DETERMINING CONCENTRATION OF NANO CHEMICAL, ITS METABOLITES, AND DEGRADATION PRODUCTS IN SPECIFIED MATRICES <sup>2/</sup> Water, Air, Soil, Sediment, Sludge, Chemical Waste, Fish, Blood, Adipose Tissue, Urine, Other (specify)			
	UNKNOWN	UNKNOWN	
SOLUBILITY	Water Solubility	SOLUBLE IN ALL PROPORTIONS	
	Solubility in Organic Solvent	NOT SIGNIFICANT	
N-OCTANOL-WATER PARTITION COEFFICIENT	UNKNOWN	UNKNOWN	
STABILITY AND REACTIVITY	Flammability	NOT FLAMMABLE	
	Explosiveness	NOT AVAILABLE	
	Oxidizing Properties	NOT KNOWN	
	Oxidation Reduction Potential	NOT KNOWN	
	Storage Stability and Reactivity (Container Material)	DO NOT STORE IN CONTAINER NOT COMPATIBLE WITH ACETIC ACID - STABLE	UNKNOWN
	Stability to Thermal, Sunlight, and Metal(s)	STABLE UP TO 50°C, AVOID SUNLIGHT, IT CAN CONTRIBUTE TO GROWTH OF ALGAE IN WATER BASED MATERIALS STABLE TO STAINLESS STEEL.	UNKNOWN



DEPARTMENT OF TOXIC SUBSTANCES CONTROL  
ATTEN: DONALD OWEN  
1001 "I" STREET, P.O. BOX 806, 12<sup>TH</sup> FL.  
SACRAMENTO, CA  
95812-0806

DEPARTMENT OF TOXIC  
SUBSTANCES CONTROL

DEC 27 2011

POLLUTION PREVENTION  
& GREEN TECHNOLOGY

