1. Identification

1.1. Product identifier

Trade name: AERODISP® W 740 X

1.2. Recommended use of the chemical and restrictions on use

Relevant applications identified: Catalyst
Ceramics

1.3. Details of the supplier of the safety data sheet

Company: Lapolla Industries, Inc.
15402 Vantage Parkway East, Suite 322
Houston, TX 77032

Telephone: (877) 636-2648

Telefax: (281) 219-4106

Email address: SDS@lapolla.com

1.4. 24 HOUR EMERGENCY TELEPHONE NUMBERS:

CHEMTREC - US & CANADA: 800-424-9300

CHEMTREC MEXICO: 01-800-681-9531

CHEMTREC INTERNATIONAL: +1 703-527-3887 **(collect calls accepted)**

Product Regulatory Services : 973-929-8060

2. Hazards identification

2.1. Classification of the substance or mixture

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Remarks: Not a hazardous substance or mixture.

2.2. Label elements

Statutory basis: Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Remarks: Not a hazardous substance or mixture.

2.3. Other hazards

None known

Titanium dioxide A PBT/vPvB assessment is not applicable, as the product contains only inorganic components.

3. Composition/information on ingredients

3.1. Substances
not applicable

3.2. Mixtures

• **Titanium dioxide**	40%
CAS-No.	13463-67-7
Remarks	Not a hazardous substance or mixture.

Other information
This material is classified as hazardous under OSHA regulations.
IARC Category 2B (possibly carcinogenic to human).

4. First aid measures

4.1. Description of first aid measures

Inhalation
If aerosol or mists are formed: Take affected persons out into the fresh air.

Skin contact
Wash off with soap and plenty of water.

Eye contact
In case of contact, immediately flush eyes with plenty of water. Obtain medical attention if irritation develops.

Ingestion
If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms
None known

Hazards
None known

4.3. Indication of any immediate medical attention and special treatment needed
No hazards which require special first aid measures.

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray, foam, CO2, dry powder., Adapt fire-extinguishing measures to surroundings

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture
None known.

5.3. Advice for firefighters
As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment.

6.2. Environmental precautions
Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

6.3. Methods and material for containment and cleaning up
Pick up mechanically with an adsorbent and collect in a suitable container. Rinse with water in suitable containers.

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7. Handling and storage

7.1. Precautions for safe handling
Stir and/or shake well before use. Always close container tightly after removal of product.

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion
No special measures are required.

Storage
Keep containers tightly closed in a dry, cool place.
Avoid heat exposure and frost.

Storage stability
Product Information

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8. Exposure controls/personal protection

8.1. Control parameters

- **Titanium dioxide**

CAS-No.	13463-67-7	
Control parameters	10 mg/m3	Time Weighted Average (TWA):(ACGIH)
Control parameters	15 mg/m3	Permissible exposure limit:(OSHA Z1)
type of exposure	Total dust.	

8.2. Exposure controls

Personal protective equipment

Respiratory protection

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hand protection

Wear protective gloves made of resistant material.

Glove material	Nitrile rubber
Material thickness	0.35 mm
Break through time	>= 480 min
Glove material	Natural rubber (NR)
Material thickness	0.5 mm
Break through time	>= 480 min
Glove material	PVC
Material thickness	0.5 mm
Break through time	>= 480 min

The rupture time and material thickness data are guideline values! Exact rupture time / material thickness data can be obtained from the protective glove manufacturer.
Suitability for specific workplaces should be clarified with protective glove manufacturers.
The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use.
Use impermeable gloves.

Eye protection
Use chemical splash goggles or face shield.

Skin and body protection
A safety shower and eye wash fountain should be readily available.
To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Hygiene measures
When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.
To ensure ideal skin protection: use super fatted soaps and skin cream for skin care.
Wash contaminated clothing before re-use.

Protective measures
Handle in accordance with good industrial hygiene and safety practice.
If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

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9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

physical state	liquid
Colour	white
Form	suspension
Odour	odorless
Odour Threshold	not applicable
pH	ca. 6 (20 °C)
Melting point/range	ca. 0 °C tested substance: Water
Boiling point/range	ca. 100 °C tested substance: Water
Flash point	not relevant, since based on water
Evaporation rate	not determined
Flammability (solid, gas)	not to be expected, given the composition employed
Lower explosion limit	not relevant, since based on water
Upper explosion limit	not relevant, since based on water
Vapour pressure	ca. 23.5 hPa (20 °C)

	tested substance: Water
Vapour density	not determined
Density	1.41 g/ml
Water solubility	partly soluble
Partition coefficient: n-octanol/water	not applicable
Autoignition temperature	not flammable
Thermal decomposition	>= 100 °C
Viscosity, dynamic	< 1000 mPa.s

9.2. Other information

Explosiveness	not to be expected, given the composition employed
Minimum ignition energy	not applicable

10. Stability and reactivity

10.1. Reactivity
No dangerous reaction known under conditions of normal use.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions: No hazardous reactions are known if properly handled and stored.

10.4. Conditions to avoid
Protect from frost, heat and sunlight.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
None known.

Stable under normal conditions.
Product will not undergo hazardous polymerization.

11. Toxicological information

11.1. Information on toxicological effects

No toxicological tests are available on the product.

Acute oral toxicity	Acute toxicity estimate : > 5000 mg/kg
Acute inhalation toxicity	Based on available data, the classification criteria are not met.

Acute dermal toxicity	Acute toxicity estimate : > 5000 mg/kg
Skin irritation	Based on available data, the classification criteria are not met.
Eye irritation	Based on available data, the classification criteria are not met.
Repeated dose toxicity	no data available.
Assessment of STOT single exposure	Assessment: No data available
Risk of aspiration toxicity	No aspiration toxicity classification
Mutagenicity assessment	no evidence of mutagenic effects
Carcinogenicity	Inhalative (mouse): 2 years Method: literature Test substance: Titanium dioxide No evidence that cancer may be caused. Inhalative Rat: 2 years Method: literature Test substance: test substance: Titanium dioxide P 25 Increased incidence of lung tumors. The scientific discussion of the tumorigenic effect of sparingly soluble inorganic particles (fine dusts)- such as titanium dioxide - is ongoing. It is the opinion of many inhalation toxicologists that the tumor formation observed in rats results from a species-specific mechanism involving overloading of the rat lung (overload phenomenon). Corresponding findings resulting from exposure of humans have not been observed to date. On the other hand, the International Agency for Research on Cancer (IARC) assessed, in February of 2006, the available rat model studies as constituting sufficient proof of the carcinogenicity of titanium dioxide in animal models. For humans, the IARC does not see sufficient evidence of a carcinogenic effect of titanium dioxide. However, the IARC evaluation scheme results in an overall assessment of titanium dioxide as "possibly carcinogenic to humans" (Group 2B).
carcinogenicity assessment	Contains a component which is classified as an IARC 2B carcinogen (possibly carcinogenic to humans).
Toxicity to reproduction	no evidence of reproductiontoxic properties

12. Ecological information

12.1. Toxicity

No ecotoxicological data is available for this product.

Toxicity to fish	LC50 Fundulus heteroclitus: > 1000 mg/l / 96 h Test substance: Titanium dioxide The reported toxic effects relate to the nominal concentration. literature
Toxicity in aquatic	EC0 Daphnia magna: 1000 mg/l / 48 h

invertebrates	Test substance: Titanium dioxide The reported toxic effects relate to the nominal concentration. literature
Toxicity to bacteria	EC0 Pseudomonas fluorencens: 10000 mg/l / 24 h Test substance: Titanium dioxide Method: DEV, DIN 38412, T. 8 (modified). The reported toxic effects relate to the nominal concentration.

12.2. Persistence and degradability

Biodegradability	The methods designed to assess persistence and biodegradability are not applicable to this product, in analogy to inorganic substances.

12.3. Bioaccumulative potential

Bioaccumulation	Not to be expected.

12.4. Mobility in soil

Mobility	No remarkable mobility in soil is to be expected.

12.5. Other adverse effects

Further Information	The data we have at our disposal do not necessitate identification concerning environmental hazard.

13. Disposal considerations

13.1. Waste treatment methods

Product

Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

Uncleaned packaging
Packaging material should be recycled or disposed of in accordance with federal, state and local regulations.

14. Transport information

Not dangerous according to transport regulations.

14.1.	UN number:	--
14.2.	UN proper shipping name:	--
14.3.	Transport hazard class(es):	--
14.4.	Packing group:	--
14.5.	Environmental hazards (Marine pollutant):	--

l4.6. Special precautions for user: Yes
Not dangerous according to transport regulations.

15. Regulatory information

US Federal Regulations

OSHA

If listed below, chemical specific standards apply to the product or components:

- None listed

Clean Air Act Section (112)

If listed below, components present at or above the de minimus level are hazardous air pollutants:

- None listed

CERCLA Reportable Quantities

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- None listed

SARA Title III Section 311/312 Hazard Categories

The product meets the criteria only for the listed hazard classes:

- Chronic Health Hazard

SARA Title III Section 313 Reportable Substances

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

Toxic Substances Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

State Regulations

The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in section 2 and 15 of this MSDS.

California Proposition 65

A warning under the California Drinking Water Act is required only if listed below:

- None listed

An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

NFPA Ratings

Health :	1
Flammability :	0
Reactivity :	0

16. Other information

Further information

Revision date 04/16/2016

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Legend

ACC	American Chemistry Council
ACGIH	American Conference of Governmental Industrial Hygenists
ACS	Advisory Committee on Sustainability
ADI	Acceptable Daily Intake
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
BOD	Biochemical oxygen demand
c.c.	closed cup
CAO	Cargo Aircraft Only
Carc	Carcinogen
CAS	Chemical Abstract Services
CDN	Canada
CEPA	Canadian Environmental Protection Act
CERCLA	Comprehensive Environmental Response – Compensation and Liability Act
CFR	Code of Federal Regulations
CMR	carcinogenic-mutagenic-toxic for reproduction
COD	Chemical oxygen demand
DIN	German Institute for Standardization
DMEL	Derived minimum effect level
DNEL	Derived no effect level
DOT	Department of Transportation
EC50	half maximal effective concentration
EPA	Environmental Protection Agency
ErC50	Reduction of Growth Rate
ERG	Emergency Response Guide Book

FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
HCS	Hazard Communication Standard
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO-TI	International Civil Aviation Organization- Technical Instructions
ICCA	International Council of Chemical Association
ID	Identification number
IMDG	International Maritime Dangerous Goods
IUPAC	International Union of Pure and Applied Chemistry
ISO	International Organization For Standardization
LC50	50 % Lethal Concentration
LD50	50 % Lethal Dose
L(E)C50	LC50 or EC50
LOAEL	Lowest observed adverse effect level
LOEL	Lowest observed effect level
MARPOL	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association
NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
RQ	Reportable Quantity
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
UN	United Nations
vPvB	very persistent, very bioaccumulative
voc	volatile organic compounds
WHMIS	Workplace Hazardous Materials Information System
WHO	World Health Organization