Read the entire SDS for a complete hazard assessment.

1. Product and Company Identification

1.1 Product :

Product Identifier	MEGHAFAST Middle Chrome
Color Index Name	Pigment Yellow 34
Color Index Number	77603
CAS Registry No	1344-37-2
EINECS Number	215-693-7
Chemical Family	Lead Sulfochromate Co-Precipitate of Lead chromate

1.2 Recommended use of the chemical and restrictions on use:

Recommended use: Colorant.
Restrictions on use: Commercial use only. This product must not be used for decorative coatings, children's articles (including toys, paints, jewelry and equipment), consumer products, printing inks for consumer products, food and food packaging, drugs and medical devices, ceramics and glassware, cosmetics and tattoos.

1.3 Manufacturer/Supplier/Distributor Information:

MANUFACTURER

Meghmani Organics Ltd.
Meghmani house
Behind Safal Profitaire, Corporate Road
Prahladnagar, Ahmedabad-380007
Gujarat State, India
Web site: www.Meghmani.com
E-mail: Helpdesk@Meghmani.com
Phone: +91-79-2970-9600, 7716, 1000
Fax: +91-79-2970-9605

RESPONSIBLE PARTY

Meghmani Organics USA Inc
8640 University City Blvd., Unit-A-3, P-306
Charlotte, NC-28213, USA
Phone: 704-425-6226
Fax: 980-258-0141

1.4 Emergency telephone number:
In the US: For a transport accident or leak, fire or major spill, call CHEMTREC, (800) 424-9300.
For International CHEMTREC assistance, call 1-703-527-3887 (collect calls accepted).

2. Hazards Identification

2.1 Hazards Classification:

GHS Classification:

Carcinogenicity (Category 1A), H350
Reproductive toxicity (Category 1A), H360
Specific target organ toxicity - repeated exposure (Category 2), H373
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 2), H411

OSHA Classification in accordance with 29 CFR 1910 (OSHA HCS): hazardous.
This SDS meets the requirements of GHS Revision 3.

2.2 Label elements including precautionary:

Symbol: .

Signal word: Danger!

Hazard Statement: H350 May cause cancer. H360 May damage fertility or the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects. H332 Harmful if inhaled.
May form combustible dust concentrations in air.

Precautionary Statements: Keep away from all ignition sources. P206 Avoid breathing dusts. Prevent dust accumulations to minimize explosion hazard. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P308 + P313 If exposed or concerned: Get medical attention/advice. P391 Collect spillage. P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards not included in the classification criteria: None.

3. Composition / Information on Ingredients

Chemical name	CAS No.	Content (%)
Pigment Yellow 34	**1344-37-2**	**100%**

4. First-aid Measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

4.1 Inhalation:

Move to fresh air. If a cough or other respiratory symptoms develop, seek medical attention.

4.2 Skin contact:

Wash skin with plenty of soap and water. If redness, itching or burning sensation develops, seek medical attention. Wash contaminated clothing before use.

4.3 Eye contact:

Immediately flush eyes thoroughly with water for several minutes. Remove contact lenses after one to two minutes and continue flushing for several more minutes. If redness, itching or burning sensation develops, seek medical attention.

4.4 Ingestion:

DO NOT INDUCE VOMITING. Drink one or two glasses of water. If irritation or discomfort develops, seek medical attention or contact a poison control center. Never give anything by mouth to an unconscious person.

4.5 Acute and delayed symptoms/effects:

Eye Contact:	Solid or dust may cause irritation .
Skin Contact:	Dust may irritate eyes.
Ingestion:	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
Inhalation:	Dust may cause irritation to upper respiratory tract (nose and throat).
Chronic health effects:	Chronic exposure may cause respiratory irritation, lung injury, and cancer. See Section 11.
Relevant routes of exposure:	Eye, skin contact, inhalation.

4.6 Indication of immediate medical attention and notes for physicians:

Persons with pre-existing skin, eye, or respiratory conditions may be at an increased risk from the irritant or allergenic properties of this material. Attending physician should treat exposed patients symptomatically.

5. Fire-fighting Measures

5.1 Extinguishing media:

Suitable extinguishing media:
Use foam or dry chemical to extinguish fire. Limit use of water spray to cool fire-exposed containers and to protect personnel. Hand held dry chemical extinguishers may be used for small fires. Dust explosion hazard may result from forceful application of fire extinguishing agents.

Unsuitable extinguishing media:
Carbon dioxide extinguishers should not be used.

5.2 Special hazards arising from the chemical:

Unusual fire and explosion hazards:
Do not permit dust to accumulate. When suspended in air, dust can pose an explosion hazard. Minimize ignition sources. Dense smoke is emitted when burned without sufficient oxygen. May dissolve in strong acids or bases.

Hazardous Combustion Products:
During a fire, smoke may contain the original material in addition to combustion products of varying composition, which may be toxic and/or irritating. Combustion products may include and are not limited to carbon monoxide, carbon dioxide, and chromium and lead oxides.

5.3 Special protective equipment and precautions for firefighters:

Fire Fighting Procedures:
Keep personnel away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. Hand held dry chemical extinguishers may be used for small fires. Dust explosion hazard may result from forceful application of fire extinguishing agents. Do not release chemically contaminated water into drains, soil or surface water.

Special Protective Equipment for Firefighters:

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove ignition sources. Avoid skin and eye contact. Evacuate personnel to safe areas. Spilled material may cause a slipping hazard. Use appropriate safety equipment. See section 8 for information on personal protection equipment.

6.2 Environmental precautions and protective procedures:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains, sewers, waterways, and/or groundwater.

6.3 Methods and material for containment and cleaning up:
Contain spilled material if possible. Sweep up using non-sparking tools. Collect in suitable and properly labeled containers. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air or dry sweeping). See section 13, Disposal Considerations, for additional information.

7. Handling and Storage

7.1 Precautions for safe handling:

No smoking, open flames or sources of ignition in handling and storage area. Good housekeeping and controlling of dusts are necessary for safe handling of product. Avoid breathing process fumes. Use with adequate ventilation. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge.
Do not eat, drink, and smoke in work areas. Wash hands after use.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage (including any incompatibilities):
Store in cool place. Avoid heat and ignition sources.

Keep container tightly closed in a dry and well-ventilated place.
Store in accordance with good manufacturing practices.

8. Exposure Controls and Personal Protection

8.1 Control parameter:

Occupational Exposure Limit values:

Lead Chromate a similar material (CAS 7758-97-6)
TWA 0.012 mg/m3 USA. ACGIH Threshold Limit Values (TLV)
TWA 0.0050 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
CEIL 0.0010 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z-2
CEIL 0.1 mg/m3 USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
TWA 0.075 mg/m3 USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
(TWA):8 hr Time Weighted Average 0.01 mg/cu m. /Insoluble Cr(VI) inorganic compounds, as Cr/[ACGIH

U.S. /Canada OSHA PEL for Lead 0.050 mg/m3 as Pb 8hr TWA
OSHA Action level for Lead 0.030 mg/m3 as Pb 8hr TWA
ACGIH Lead 0.050 mg/m3 as Pb 8hr TWA

OSHA PEL for Chromium (VI) 0.005 mg/m3 as Cr 8hr TWA
OSHA Action level for Chromium (VI) 0.0025 mg/m3 as Cr 8hr TWA
ACGIH Chromium 0.012 mg/m3 as Cr 8hr TWA

NIOSH Recommended Exposure Limit: 8-hour Time-Weighted Average: 0.0002 mg Cr(VI)/cu m. NIOSH considers all Cr(VI) compounds (including chromic acid, tert-butyl chromate, zinc chromate, and chromyl chloride) to be potential occupational carcinogens.

Employers must take into account the following workplace regulations:
U.S. 29.CFR 1910.1025 Lead Standard
U.S. 29.CFR 1910.1026 Occupational Exposure to Hexavalent Chromium

Immediately Dangerous to Life or Health
15 mg/cu m (as Cr(VI)). /Chromic acid and chromates/[NIOSH]

8.2 Appropriate engineering controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen- deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
Use only appropriately classified electrical equipment and powered industrial trucks. Refer to NFPA 654, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*, for safe handling.

8.3 Personal protective equipment:

Eye protection:
Wear chemical goggles. If exposure exceeds permissible limits use a full-face respirator.

Body protection:

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand protection:
Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Selection of gloves will depend on the task.

Respiratory protection:
Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. Use air purifying dust respirator if airborne concentration are above recommended exposure limits. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Other:
Have eyewash station in work area. Do not consume or store food in the work area. Wash hands before smoking or eating. Control of environmental exposure Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. Physical and Chemical Properties

Appearance:	Fine yellow powder
Odor:	Odorless
Odor threshold:	No data available
pH:	Approximately 5.5 To 8
Melting point:	> 800 °C
Boiling point:	No data available
Flash point:	No data available
Evaporation rate:	Not applicable
Flammability:	No data available
Upper/lower flammability or Explosive limits:	No data available
Vapor pressure:	Not applicable
Solubility:	Insoluble in cold water
Vapor density:	Not applicable
Relative density/specific gravity:	5.1
Density at 20° C	5.6 gm / m3
Partition coefficient, n-octanol/water:	Not applicable
Auto-ignition temperature:	No data available
Decomposition temperature:	240 deg C
Viscosity:	Not applicable
Volatities at 100 deg C	0.22%
Water Solubility	Insoluble
Explosive Properties	Not an explosive
Partition coefficient n-octanol/water	No data available

10. Stability and Reactivity

10.1 **Chemical stability**: Stable under normal temperature conditions and recommended use. May dissolve in strong acids or bases.

10.2 **Possibility of hazardous reactions:** No hazardous reactions if stored and handled as prescribed/indicated.

10.3 **Conditions to avoid**: Strong heating, open flames, moisture.

10.4 **Incompatible materials**: Strong oxidizing agents, strong acids.

10.5 **Hazardous decomposition products:**
Decomposition products depend upon temperature, air supply and the presence of other materials. Processing may release fumes and other decomposition products. Fumes can be irritating. In case of fire, possible emission of carbon monoxide, carbon dioxide, chromium, sulfur and lead oxides.

11. Toxicological Information

11.1 **Information on the likely routes of exposure**:

Inhalation:	Harmful if inhaled
Mouth:	Ingestion is unlikely under normal conditions.
Skin and eye contact:	May irritate eyes and skin.

11.2 **Information on toxicological effects:**

Acute toxicity:

Oral	LD_{50} > 5000 mg/kg (rat)
Inhalation	No data available.
Dermal	No data available.

Respiratory or skin sensitization:	No information available.
Germ Cell Mutagenicity:	No information available.
Skin corrosion/irritation:	Classification: Not classified as irritant
Serious eye damage/irritation:	Classification: Not classified as irritant
Inhalation:	May cause respiratory tract irritation Classification: Not classified
Respiratory sensitization:	Did not cause sensitization on laboratory animals (mouse) Classification: Does not cause respiratory sensitization
Skin sensitization:	Did not cause sensitization on laboratory animals (guinea pig) Classification: Does not cause skin sensitization
Ingestion	May cause gastric disturbances Classification: Not toxic by ingestion.

Repeated dose toxicity

Mutagenicity:	No effects were found.

Reproductive Toxicity:	Impaired gonadal development ,embryo- and feto- mortality.
Teratogenicity:	Lead salts have teratogenic effect in some animal species.

Specific target organ toxicity (STOT):

STOT-single exposure:	Classification: Not classified
STOT-repeated exposure:	Classification: classified Oral route Target organs Liver, kidney, blood effects
Chronic effects**:**	Lung cancer

The lowest-observed-(adverse)-effect level (LO(A)EL) in dogs was observed at 2000 ppm administered in the diet (60 mg/kg bw/day) and was based on significantly altered hematological parameters including decreased hemoglobin and hematocrit values; altered erythrocyte morphology; significantly increased aminolevulinic acid in the urine; and dose-related pathological changes of the kidneys. Impaired gonadal development was noted in the exposed animals but not in the controls. Similar hematological, urinary and renal effects were observed in rats administered 2000 ppm in the diet (100 mg/kg-bw/day).

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: Pain or irritation, watering, redness.
Inhalation: irritation of respiratory tract, coughing, and difficulty breathing.
Skin contact: Irritation, redness.

Regulated carcinogen(s) :
The International Agency of Research on Cancer (IARC) has determined material can cause lung cancer in humans. IRAC Classifies it in Group1: sufficient evidence in humans for carcinogenicity.
National Toxicity Program (NTP) lists it as a known human carcinogen.
OSHA specifically regulated carcinogen (Lead chromate) Reproductive toxicity.
Known human reproductive toxicant.
ACGIH A2 Suspected Human Carcinogen

11.3 Aspiration hazard No data available

11.4 Additional Information RTECS: GB2975000
Lead salts have been reported to cross the placenta and to induce embryo- and feto- mortality. They also have teratogenic effect in some animal species. No teratogenic effects have been reported with exposure to organometallic lead compounds. Adverse effects of lead on human reproduction, embryonic and fetal development, and postnatal (e.g., mental) development have been reported. Excessive exposure can affect blood, nervous, and digestive systems. The synthesis of hemoglobin is inhibited and results in anemia. If left untreated, neuromuscular dysfunction, possible paralysis, and encephalopathy can result. Additional symptoms of overexposure include: joint and muscle pain, weakness of the extensor muscles (frequently the hand and wrist), headache, dizziness, abdominal pain, diarrhea, constipation, nausea, vomiting, blue line on the gums, insomnia, and metallic taste. High body levels produce increased cerebrospinal pressure, brain damage, and stupor leading to coma and often death., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Stomach - Irregularities - Based on Human Evidence

12. Ecological Information

12.1 **Aquatic and terrestrial ecotoxicity:**

Aquatic Toxicity – Product may be acutely harmful to aquatic organisms & may cause long-term adverse effect in the aquatic environment.
Toxicity to Fish – LC50 (96 h) > 500 mg/l, Leuciscus Aquatic invertebrates – EC50 (48 h) 100 mg/L,

Daphnia magna Aquatic Plants – Based on review of lead: 300 micro g/l. Based on review of Cr (IV) 2000microg/l Algae, not determined
Chronic toxicity to fish – No data available
Microorganisms / Effect on activated sludge
Toxicity to Microorganisms DIN 38412 Part 27 (draft) bacterium / EC50: > 100 mg/l

12.2 **Persistence and degradability**: Insignificant Degradability

12.3 **Bioaccumulative potential:** Due to the very low solubility of C. I. Pigment Yellow 34 in water the bioavailability of the substance is expected to be low. Therefore, the bioaccumulation potential of the substance is expected to be low.

12.4 **Mobility in soil:** No information available.

12.5 **Other adverse effects:** No other relevant information available.

13. Disposal Considerations

13.1 **Disposal methods:**

-All disposal methods must comply with applicable laws. Do not dump into any sewers, on the ground or into any body of water. All disposal practices must comply with all federal, state, and local laws and regulations. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. If incineration is used, take precautions to guard against the formation of explosive dust air mixtures when handling combustible powders.
-Generators of waste containing this product must conform with USEPA regulations in storage, transportation, treatment and disposal of waste.
-A solid waste containing lead may or may not become characterized as a hazardous waste (Code D008) when subjected to the Toxicity Characteristic Leaching Procedure listed in 40 CFR 261.24, and if so characterized, must be managed as a hazardous waste.
-A solid waste containing chromium may or may not become characterized as a hazardous waste (Code D007) when subjected to the Toxicity Characteristic Leaching Procedure listed in 40 CFR 261.24, and if so characterized, must be managed as a hazardous waste.
-Pigment Yellow contains high levels of lead (up to about 60%) and chromium (up to 12%) and must not be released into the environment. Tests indicate that with few exceptions they do not pass the U.S. Toxic Characteristic Leaching Procedure (TCLP), exceeding the 5 mg/liter maximum for lead.
Pigment Yellow waste must therefore be classified as hazardous waste and disposed of appropriately.

13.2 **Disposal precaution:**Observe all federal, state, and local regulations when disposing of this product.

13.3 **Container disposal:**
Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue. Dispose of at a permitted facility.

14. Transport Information

DOT (US): Not regulated.

IMDG
UN number: 3077
Class: 9
Packing group: III
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Lead chromate)
Marine pollutant:yes

IATA
UN number: 3077
Class: 9
Packing group: III
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Lead chromate)

15. Regulatory information

US Regulations

US Federal regulations:

15.1 US EPA TSCA Inventory: All chemical substances in the products comply with all rules or orders under TSCA. All intentionally added ingredients either are listed on the TSCA Inventory list or exempt from listing.

15.2 SARA Section 311/312 Hazard Categories

Acute Hazard:	No
Chronic Hazard:	Yes
Fire Hazard:	Yes
Reactive Hazard:	No
Sudden Pressure Release:	No

15.3 CERCLA Hazardous Substance:

Component(s)	Reportable Quantity
Chromium	1000 lb
Lead	10 lb

15.4 SARA Section 302 Extremely Hazardous Substances:

Component(s)/ CAS Number	Concentration Min	Max
None		

15.5 SARA Section 313 Toxic Chemicals:

Component(s)/ CAS Number	Reporting Threshold	Concentration

Chromium (7440-47-3)	0.1%	16%
Lead (7439-92-1)	0.1%	64%

15.6 California Proposition 65: Warning!

This product is known to contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Lead Compounds, Chromium (VI) Compounds

Pennsylvania Worker and Community Right To Know Act:

Hazardous Substances: Lead Compounds , Chromium (VI) Compounds

New Jersey Worker and Community Right To Know Act:

Hazardous Substances: Lead Compounds , Chromium (VI) Compounds

Hazardous air pollutant (HAP) generally known or suspected to cause serious health problems. The Clean Air Act, as amended in 1990, directs EPA to set standards requiring major sources to sharply reduce routine emissions of toxic pollutants. Chromium compounds are included on this list.

15.7 International Regulations

Canadian Regulations:

WHMIS Statement: This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*. This product is classified as controlled in accordance with the Canadian Controlled Products Regulations **(WHMIS). D2A Very Toxic (Carcinogen)**

According to the **harmonized classification and labeling** (ATP01) approved by the European Union

- Substance of very high concern (SVHC) and included in the candidate list for authorization.
- Substance of very high concern requiring authorization before it is used (Annex XIV of REACH).

Other requirements: Inventroy Listing:

TSCA - *United States Toxic Substances Control Act Section 8(b) Inventory*	*LISTED*
DSL - *Canadian Domestic Substances List*	*LISTED*
NDSL *Non-Domestic Substances List*	*NOT LISTED*
EINECS - *European Inventory of Existing Chemical Substances/European*	*LISTED*
ELINCS *List of Notified Chemical Substances*	*NOT LISTED*
ENCS - *Japan Existing and New Chemical Substances*	*NOT LISTED*
IECSC - *China Inventory of Existing Chemical Substances*	*LISTED*
KECL - *Korean Existing and Evaluated Chemical Substances*	*LISTED*
PICCS - *Philippines Inventory of Chemicals and Chemical Substances*	*LISTED*
Australia Australian Inventory of Chemical Substances	LISTED
TCSI Taiwan Inventory of Chemical Substances	LISTED

16. Other Information

16.1 Revision information:

Date of the previous revision: 04/01/2019

Date of this revision: 07/27/2019
Revision summary: Revised format to GHS/OSHA compliant SDS

16.2 Training advice: Provide adequate information, instruction and training for operators.

16.3 NFPA and HMIS Hazard Ratings:

We assigned NFPA and HMIS ratings to this product based on the hazards of its ingredient(s). Because the customer is most aware of the application of the product, the customer must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product SDS. This information is intended solely for the use of individuals trained in the particular hazard rating system.
Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme

NFPA (National Fire Protection Association) - Classification

Health	1
Flammability	1
Instability or Reactivity	0 minimal

HMIS® [Hazardous Materials Identification System (Paint & Coating)] - Classification

Health	2*CHRONIC
Flammability	1 minimal
Reactivity	0 minimal

NFPA, HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS must be considered. This information is supplied solely for the use of individuals trained in the particular hazard rating system.

16.4 Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	American Conference of Governmental Industrial Hygienists
BEI	Biological Exposure Index
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
NOAEL	No observed adverse effect level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
OECD	Organization for Economic Co-operation and Development
OPPTS	Office of Prevention, Pesticides, and Toxic Substances
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
ppm	parts per million
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average
Action Level	An exposure value set by OSHA that is lower than the PEL that will trigger the need for activities such as exposure monitoring and medical surveillance.
DNEL	The **derived no-effect level** is the level of exposure to a substance above which humans should not be exposed.

16.5 Distributed By: R.E. Carroll, Inc.
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16.6 Declare to reader:

The opinions expressed herein are those of qualified experts . The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

END OF SDS