

Product Name: DEVELOPMENTAL DRY NG CATALYST  
Revision Date: 11 Mar 2020  
Page 1 of 13

## SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT

**Product Name:** DEVELOPMENTAL DRY NG CATALYST

**Product Description:** Research Sample

**Intended Use:** Research & Development

#### COMPANY IDENTIFICATION

**Supplier:** ExxonMobil Catalysts and Licensing LLC

22777 Springwoods Village Parkway  
Spring, TX 77389 USA

**24 Hour Health Emergency**

609-737-4411

**Transportation Emergency Phone**

(800) 424-9300 or (703) 527-3887 CHEMTREC

**Product Technical Information**

832-624-8500

### SECTION 2 HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

#### CLASSIFICATION:

Pyrophoric solid: Category 1. In contact with water emits flammable gas: Category 1.

Skin corrosion: Category 1. Serious eye damage: Category 1. Specific target organ toxicant (repeated exposure): Category 2.

Combustible Dust

#### LABEL:

##### Pictogram:



**Signal Word:** Danger

#### Hazard Statements:

H250: Catches fire spontaneously if exposed to air. H260: In contact with water releases flammable gases which may ignite spontaneously. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage. H373: May cause damage to organs through prolonged or repeated exposure. Central Nervous system

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 2 of 13

---

May form combustible dust concentrations in air.

**Precautionary Statements:**

P210: Keep away from heat/sparks/open flames/hot surfaces. -- No smoking. P222: Do not allow contact with air. P223: Do not allow contact with water. P231 + P232: Handle under inert gas. Protect from moisture. P260: Do not breathe dust. P264: Wash skin thoroughly after handling. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/physician. P335 + P334: Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. P363: Wash contaminated clothing before reuse. P370 + P378: In case of fire: Use dry chemical, vermiculite, dry sand, soda ash or lime to extinguish. P391: Collect spillage. P402 + P404: Store in a dry place. Store in a closed container. P405: Store locked up. P501: Dispose of contents and container in accordance with local regulations.

**Supplemental Statements:**

If small particles are formed during further processing, handling, or by other means, may form combustible dust concentrations in air.

**Contains:** ORGANOMETALLIC COMPOUND; TOLUENE

**Other hazard information:**

**HAZARD NOT OTHERWISE CLASSIFIED (HNOC):** None as defined under 29 CFR 1910.1200.

**PHYSICAL / CHEMICAL HAZARDS**

WARNING: May form combustible dust concentrations in air (during processing/handling). Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited.

**HEALTH HAZARDS**

If dust is generated, it could scratch the eyes and cause minor irritation to the respiratory tract. Repeated exposure may cause skin dryness or cracking.

**ENVIRONMENTAL HAZARDS**

Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

<b>NFPA Hazard ID:</b>	Health: 3	Flammability: 4	Reactivity: 2
<b>HMIS Hazard ID:</b>	Health: 3*	Flammability: 4	Reactivity: 2

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information.

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 3 of 13

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

#### Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
ALUMINOXANES	949495-39-0	< 30%	H250(S), H260, H315, H401, H411
AMORPHOUS SILICON DIOXIDE	112926-00-8	50 - 75%	None
ORGANOMETALLIC COMPOUND	PROPRIETARY	< 10%	H261(2), H314(1B)
TOLUENE	108-88-3	< 3%	H225, H304, H336, H315, H373, H401, H412

\* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

NOTE: This material is supplied for limited use only for purposes of experimental research and development. It should not be used for commercial purposes or be made available except in small quantities. The material must be used by or under the supervision of a technically qualified person. The toxicological properties of this product may not have been fully investigated.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

### SECTION 4 FIRST AID MEASURES

#### INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

#### SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Wash carefully behind ears, under nails and in skin folds. Get medical assistance. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered.

#### EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

#### INGESTION

Seek immediate medical attention. Do not induce vomiting.

### SECTION 5 FIRE FIGHTING MEASURES

#### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Dry Chemical, Vermiculite, Dry Sand, Soda Ash or Lime

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 4 of 13

**Inappropriate Extinguishing Media:** Water, CO2 or Foam

## **FIRE FIGHTING**

**Fire Fighting Instructions:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Unusual Fire Hazards:** Pyrophoric. Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentration and in the presence of an ignition source is a potential dust explosion hazard. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

**Hazardous Combustion Products:** Incomplete combustion products, Metal Oxides, Oxides of carbon, Silica, Smoke, Fume

## **FLAMMABILITY PROPERTIES**

**Flash Point [Method]:** N/A

**Flammable Limits (Approximate volume % in air):** LEL: N/A UEL: N/A

**Autoignition Temperature:** N/A

## **SECTION 6**

## **ACCIDENTAL RELEASE MEASURES**

### **NOTIFICATION PROCEDURES**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

### **PROTECTIVE MEASURES**

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. 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 (for example, clearing dust surfaces with compressed air). Prevent dust exposure to ignition sources. For example, use non-sparking tools and prohibit smoking, flares, sparks or flames in immediate area. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

### **SPILL MANAGEMENT**

**Land Spill:** Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Keep substance wet using water spray. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal. Prevent dust cloud. Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. Scrape up spilled material with shovels into a suitable container for recycle or disposal.

**Water Spill:** Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 5 of 13

shipping.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

## ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

## SECTION 7

## HANDLING AND STORAGE

### HANDLING

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dust from material can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electrical spark (ignition source). Provide adequate precautions to ignition sources, such as electrical grounding and bonding, inert atmosphere or non-sparking tools. However, bonding and grounds may not eliminate the hazard for static accumulation. Consult local applicable standards for guidance. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids and EN 61241, Electrical Apparatus for Use in the Presence of Combustible Dust for safe handling. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid contact with skin. Avoid contact with eyes. Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Product may generate heat if it comes in contact with water or water vapor. Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Avoid contact with moist air. Prevent small spills and leakage to avoid slip hazard. DO NOT allow water to come into contact with this material.

**Transport Temperature:** [Ambient]

**Static Accumulator:** This material is a static accumulator.

### STORAGE

Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. Material should be stored under an inert atmosphere. The type of container used to store the material may affect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred.

**Storage Temperature:** [Ambient]

## SECTION 8

## EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard			NOTE	Source
ORGANOMETALLIC COMPOUND		TWA	5 mg/m3		N/A	OSHA Z1
ORGANOMETALLIC COMPOUND		STEL	10 mg/m3		N/A	ACGIH

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 6 of 13

ORGANOMETALLIC COMPOUND [as Zr]		TWA	5 mg/m <sup>3</sup>		N/A	ACGIH
TOLUENE		Ceiling	300 ppm		N/A	OSHA Z2
TOLUENE		Maximum concentration	500 ppm		N/A	OSHA Z2
TOLUENE		TWA	200 ppm		N/A	OSHA Z2
TOLUENE		TWA	20 ppm		N/A	ACGIH

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

### Biological limits

Substance	Specimen	Sampling Time	Limit	Determinant	Source
TOLUENE	Blood	Prior to last shift of work wk	0.02 mg/l	Toluene	ACGIH BELs (BEIs)
TOLUENE	Creatinine in urine	End of shift	0.3 mg/g	o-Cresol, with hydrolysis	ACGIH BELs (BEIs)
TOLUENE	Urine	End of shift	0.03 mg/l	Toluene	ACGIH BELs (BEIs)

### ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Eye washes and showers for emergency use. Adequate ventilation should be provided whenever the material is heated or mists are generated. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product are designed and maintained to minimize dust generation and accumulation. Ensure that dust-handling systems (such as exhaust ducts, dusts collectors, vessels, and processing equipment) are designed to minimize the potential for dust ignition and prevent explosion propagation. For example, use explosion relief vents, an explosion suppression system or inert equipment internals. Additional examples of proper equipment include using only appropriately classified electrical equipment and powered industrial trucks.

### PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Particulate air-purifying respirator approved for dust / oil mist is recommended.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 7 of 13

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

**Eye Protection:** Chemical goggles and face shield are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

## ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9

## PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications.

### GENERAL INFORMATION

**Physical State:** Solid

**Color:** Yellow

**Odor:** Pungent

**Odor Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** < 1

**Flammability (Solid, Gas):** N/A

**Flash Point [Method]:** N/A

**Flammable Limits (Approximate volume % in air):** LEL: N/A UEL: N/A

**Autoignition Temperature:** N/A

**Boiling Point / Range:** N/A

**Decomposition Temperature:** N/D

**Vapor Density (Air = 1):** N/A

**Vapor Pressure:** N/A

**Evaporation Rate (n-butyl acetate = 1):** N/A

**pH:** N/A

**Log Pow (n-Octanol/Water Partition Coefficient):** N/A

**Solubility in Water:** Highly Reactive

**Viscosity:** N/A

Product Name: DEVELOPMENTAL DRY NG CATALYST  
Revision Date: 11 Mar 2020  
Page 8 of 13

**Oxidizing Properties:** See Hazards Identification Section.

#### OTHER INFORMATION

**Freezing Point:** N/A  
**Melting Point:** N/A

### SECTION 10 STABILITY AND REACTIVITY

**REACTIVITY:** See sub-sections below.

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Loss of nitrogen blanket., High energy sources of ignition., Moisture.

**MATERIALS TO AVOID:** Air, Alcohol, Strong oxidizers, Water

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose at ambient temperatures.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization will not occur.

### SECTION 11 TOXICOLOGICAL INFORMATION

#### INFORMATION ON TOXICOLOGICAL EFFECTS

<b>Hazard Class</b>	<b>Conclusion / Remarks</b>
<b>Inhalation</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	May be irritating to the respiratory tract. The effects are irreversible. Based on assessment of the components.
<b>Ingestion</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
<b>Skin</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Corrosive to eyes and skin. May cause permanent damage. Based on assessment of the components.
<b>Eye</b>	
Serious Eye Damage/Irritation: No end point data for material.	Severely irritating, and may seriously damage eye tissue. Based on assessment of the components.
<b>Sensitization</b>	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
<b>Aspiration:</b> No end point data for material.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
<b>Germ Cell Mutagenicity:</b> No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
<b>Carcinogenicity:</b> No end point data for material.	Not expected to cause cancer. Based on assessment of the components.

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 9 of 13

<b>Reproductive Toxicity:</b> No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
<b>Lactation:</b> No end point data for material.	Not expected to cause harm to breast-fed children.
<b>Specific Target Organ Toxicity (STOT)</b>	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Causes organ damage from prolonged or repeated exposure. Based on assessment of the components.

## OTHER INFORMATION

### For the product itself:

Target Organs Repeated Exposure: Central Nervous system

Elevated temperatures or mechanical action may form vapors, mists or fumes which may be irritating to the eyes and respiratory tract.

The toxicological properties of this material have not been fully assessed. This material must be used by or under the supervision of a technically qualified person.

Dust may be irritating to eyes and respiratory tract.

### Contains:

**AMORPHOUS SILICA :** Most amorphous silicas (e.g., diatomaceous earth and precipitated silica) have relatively little adverse effects, although high aerosol concentrations may cause irritation of respiratory tract or, with prolonged exposure, possible benign pneumoconiosis. Aerosols of fused amorphous silica are thought to have greater potential to cause pulmonary fibrosis.

**TOLUENE :** Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (> 1500 ppm) have been reported to cause adverse fetal developmental effects.

The following ingredients are cited on the lists below: None.

### --REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

## SECTION 12

## ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

### ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

## SECTION 13

## DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 10 of 13

## DISPOSAL RECOMMENDATIONS

Dispose of material in accordance with applicable laws and regulations. Potential methods of disposal may include deep well injection, evaporation, treatment/discharge or transport to a treatment/disposal facility.

## REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: REACTIVITY. CORROSIVITY.

**Empty Container Warning** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

## SECTION 14

## TRANSPORT INFORMATION

### LAND (DOT)

**Proper Shipping Name:** ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER REACTIVE (ALUMINOXANES)

**Hazard Class & Division:** 4.2

**ID Number:** 3393

**Packing Group:** I

**Hazard Zone:** D

**Marine Pollutant:** Yes

**Product RQ:** 33333.33 LBS - TOLUENE

**ERG Number:** 135

**Label(s):** 4.2 (4.3)

**Transport Document Name:** UN3393, ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER REACTIVE (ALUMINOXANES), 4.2 (4.3), PG I, MARINE POLLUTANT

Footnote: May qualify for Small Quantity Exception under 49CFR 173.4.

### SEA (IMDG)

**Proper Shipping Name:** ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER REACTIVE (ALUMINOXANES)

**Hazard Class & Division:** 4.2

**EMS Number:** F-G, S-M

**UN Number:** 3393

**Packing Group:** I

**Marine Pollutant:** No

**Label(s):** 4.2 (4.3)

**Transport Document Name:** UN3393, ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER REACTIVE (ALUMINOXANES), 4.2 (4.3), PG I

### AIR (IATA)

**Proper Shipping Name:** FORBIDDEN

Product Name: DEVELOPMENTAL DRY NG CATALYST  
Revision Date: 11 Mar 2020  
Page 11 of 13

## SECTION 15 REGULATORY INFORMATION

**OSHA HAZARD COMMUNICATION STANDARD:** This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

**Listed or exempt from listing/notification on the following chemical inventories:**  
**Special Cases:**

Inventory	Status
TSCA	Experimental

**SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

**CERCLA:**

Chemical Name	CAS Number	Typical Value	Component RQ	Product RQ
TOLUENE	108-88-3	< 3%	1000 LBS	33333.33 LBS

**SARA (311/312) REPORTABLE GHS HAZARD CLASSES:** In contact with water emits flammable gas, Pyrophoric (liquid or solid), Serious eye damage or eye irritation, Skin Corrosion or Irritation, Specific Target Organ toxicity (single or repeated exposure), Combustible Dust

**SARA (313) TOXIC RELEASE INVENTORY:**

Chemical Name	CAS Number	Typical Value
TOLUENE	108-88-3	< 3%

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
AMORPHOUS SILICON DIOXIDE	112926-00-8	16, 17, 18
ORGANOMETALLIC COMPOUND	PROPRIETARY	1, 4
TOLUENE	108-88-3	1, 4, 11, 13, 15, 16, 17, 18, 19

### --REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

## SECTION 16 OTHER INFORMATION

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 12 of 13



**WARNING:** Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights.

N/D = Not determined, N/A = Not applicable

**KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):**

H225: Highly flammable liquid and vapor; Flammable Liquid, Cat 2

H250: Catches fire spontaneously if exposed to air; Pyrophoric Solid, Cat 1

H260: In contact with water releases flammable gases which may ignite spontaneously; Contact with Water emit Flammable Gas

H261(2): In contact with water releases flammable gases; Contact with Water emit Flammable Gas

H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1

H314(1B): Causes severe skin burns and eye damage; Skin Corr/Irritation, Cat 1B

H315: Causes skin irritation; Skin Corr/Irritation, Cat 2

H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1

H336: May cause drowsiness or dizziness; Target Organ Single, Narcotic

H373: May cause damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 2

H401: Toxic to aquatic life; Acute Env Tox, Cat 2

H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2

H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

Composition: Concentration Footnote information was modified.

Composition: Defined as statement (GHS) information was modified.

Composition: Footnotes information was modified.

Composition: US GHS Footnote information was modified.

GHS Health Classification information was modified.

GHS Health Symbol information was modified.

GHS Physical/Chemical Classification information was modified.

GHS Physical/Chemical Symbol information was modified.

Hazard Identification: Section 3 Footnotes information was modified.

Hazard Identification: US - Hazards Statement - GHS information was modified.

OSHA Special Hazards Classification information was modified.

OSHA Special Hazards Statement information was modified.

Section 01: Company Mailing Address information was modified.

Section 04: First Aid Eye information was modified.

Section 06: Accidental Release Measures - Environmental Precautions information was modified.

Section 06: Protective Measures information was modified.

Section 08: Biological Limits - Header information was modified.

Section 08: Exposure Control - Note information was modified.

Section 08: Personal Protection information was modified.

Section 09: Phys/Chem Properties Note information was modified.

Section 11: Acute Toxicity Table Header information was modified.

Section 11: Additional Health Information information was modified.

Section 11: Chronic Tox - Component information was modified.

Section 11: Chronic Tox - Product information was modified.

Section 11: Other Health Effects Header information was modified.

Section 11: Other Health Effects information was modified.

Section 11: Target Organ Toxicity Repeat - Header information was modified.

Product Name: DEVELOPMENTAL DRY NG CATALYST

Revision Date: 11 Mar 2020

Page 13 of 13

---

Section 12: Ecological Information - Acute Aquatic Toxicity information was modified.

Section 12: Ecotoxicity - Header information was modified.

Section 13: Disposal Considerations - Disposal Recommendations information was modified.

Section 13: Disposal Recommendations - Note information was modified.

Section 13: Regulatory Disposal Information information was modified.

Section 14: DOT Footnote information was modified.

Section 16: Copyright - XOM information was modified.

Section 16: HCode Key information was modified.

Section 16: Materials Covered information was added.

Section 16: MSN, MAT ID information was modified.

Section 16: Standard phrases for California Proposition 65 information was modified.

**THIS MSDS COVERS THE FOLLOWING MATERIALS:** NG-1020

-----

The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. The term, "ExxonMobil" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest.

-----

Internal Use Only

MHC: 0, 0, 0, 4, 5, 3

DGN: 7202766XUS (1030095)

-----

Copyright 2002 Exxon Mobil Corporation, All rights reserved