

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 1 of 19
Print Date 07/26/2016

SAFETY DATA SHEET

FA-83**Section 1. Identification**

GHS product identifier : FA-83
Chemical name : Mixture
CAS number : Mixture
Other means of identification : CC10245290
Product type : liquid

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications. Plastics.

Supplier's details : **POLYONE CORPORATION**
ColorMatrix Group Inc.
680 North Rocky River Drive, Berea, Ohio, 44017-1628, USA

+1 216 622 0100

Emergency telephone number (with hours of operation) : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Section 2. Hazards identification

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 2


GHS label elements

SAFETY DATA SHEET

**FA-83**

Version Number 1.0
Revision Date 07/25/2016

Page 2 of 19
Print Date 07/26/2016

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	<p>Causes serious eye irritation.</p> <p>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>May cause an allergic skin reaction.</p> <p>Suspected of causing genetic defects.</p>
<u>Precautionary statements</u>		
General	:	Not applicable.
Prevention	:	<p>Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wear respiratory protection. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.</p>
Response	:	<p>IF exposed or concerned: Get medical attention. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.</p>
Storage	:	Store in a well-ventilated place.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	CC10245290

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 3 of 19
Print Date 07/26/2016

CAS number/other identifiers

Ingredient name	%	CAS number
Azodicarbonamide	25 - 50	123-77-3
Sodium bicarbonate	10 - 25	144-55-8
Diphenyloxide-4,4'-disulfohydrazide	5 - 8.9	80-51-3
Zinc oxide	1 - 3	1314-13-2
Calcium oxide	1 - 1.04	1305-78-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 4 of 19
Print Date 07/26/2016

- may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed**Potential acute health effects**

- Eye contact** : Causes serious eye irritation.
- Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

SAFETY DATA SHEET

**FA-83**

Version Number 1.0
Revision Date 07/25/2016

Page 5 of 19
Print Date 07/26/2016

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and

SAFETY DATA SHEET

**FA-83**

Version Number 1.0
Revision Date 07/25/2016

Page 6 of 19
Print Date 07/26/2016

- unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

<h2>Section 7. Handling and storage</h2>
--

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly

SAFETY DATA SHEET


FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 7 of 19
Print Date 07/26/2016

- Advice on general occupational hygiene** : closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in a well-ventilated place. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Azodicarbonamide	
Sodium bicarbonate	
Diphenyloxide-4,4'-disulfohydrazide	ACGIH TLV (2000-03-01) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 0.1 mg/m ³ Form: Inhalable fraction
Zinc oxide	OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 5 mg/m ³ Form: Fume Short Term Exposure Limit value for a 15-minute reference period expressed in parts per million or in mg/m³. 10 mg/m³ Form: Fume PEL: Permissible Exposure Level 10 mg/m³ Form: Total dust PEL: Permissible Exposure Level 5 mg/m³ Form: Respirable fraction

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 8 of 19
Print Date 07/26/2016

	<p>OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 5 mg/m³ Form: Fume PEL: Permissible Exposure Level 15 mg/m³ Form: Total dust PEL: Permissible Exposure Level 5 mg/m³ Form: Respirable fraction</p> <p>NIOSH REL (1994-06-01) Time Weighted Average (TWA) 5 mg/m³ Form: Dust and fumes Short Term Exposure Limit value for a 15-minute reference period expressed in parts per million or in mg/m³. 10 mg/m³ Form: Fume Ceiling, is a limit indicating the maximum concentration of a chemical substances in the breathing zone that should not be exceeded. 15 mg/m³ Form: Dust</p> <p>ACGIH TLV (2003-01-01) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 2 mg/m³ Form: Respirable fraction TLV-STEL: Threshold Limit Value - Short Time Exposure Level 10 mg/m³ Form: Respirable fraction</p>
Calcium oxide	<p>OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 5 mg/m³</p> <p>OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 5 mg/m³</p> <p>NIOSH REL (1994-06-01) Time Weighted Average (TWA) 2 mg/m³</p> <p>ACGIH TLV (1994-09-01) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 2 mg/m³</p>

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 9 of 19
Print Date 07/26/2016

- clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** :
- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** :
- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** :
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** :
- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** :
- Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : liquid [liquid]
- Color** : NOT APPLICABLE
- Odor** : Faint odor.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.

SAFETY DATA SHEET

**FA-83**

Version Number 1.0
Revision Date 07/25/2016

Page 10 of 19
Print Date 07/26/2016

Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	Lower: Not available. Upper: Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	insoluble in water.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	Dynamic: Not available. Kinematic: Not available.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Keep away from extreme heat and oxidizing agents.
Incompatible materials	:	Keep away from strong acids. Oxidizer.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
-------------------------	--------	---------	------	----------

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 11 of 19
Print Date 07/26/2016

Diphenyloxide-4,4'-disulfohydrazide				
	LD50 Oral	Rat	2,300 mg/kg	-
Sodium bicarbonate				
	LD50 Oral	Rat	4,220 mg/kg	-
Azodicarbonamide				
	LD50 Oral	Rat	6,400 mg/kg	-

Conclusion/Summary : Mixture.Not fully tested.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Zinc oxide	Eyes - Mild irritant	Rabbit		24 hrs	-
	Skin - Mild irritant	Rabbit		24 hrs	-
Sodium bicarbonate	Eyes - Mild irritant	Rabbit		0.008 hrs	-
	Skin - Mild irritant	Human		72 hrs	-

Conclusion/Summary

Skin : Mixture.Not fully tested.
Eyes : Mixture.Not fully tested.
Respiratory : Mixture.Not fully tested.

Sensitization**Conclusion/Summary**

Skin : Mixture.Not fully tested.
Respiratory : Mixture.Not fully tested.

Mutagenicity**Conclusion/Summary**

: Mixture.Not fully tested.

Carcinogenicity**Conclusion/Summary**

: Mixture.Not fully tested.

Reproductive toxicity**Conclusion/Summary**

: Mixture.Not fully tested.

Teratogenicity**Conclusion/Summary**

: Mixture.Not fully tested.

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 12 of 19
Print Date 07/26/2016

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Calcium oxide	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
Inhalation : Adverse symptoms may include the following:
 wheezing and breathing difficulties
 asthma
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure**Short term exposure**

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 13 of 19
Print Date 07/26/2016

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Mixture. Not fully tested.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : Suspected of causing genetic defects.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity**Acute toxicity estimates**

Route	ATE value
Oral	4,530.8 mg/kg

Section 12. Ecological information**Toxicity**

Product/ingredient name	Result	Species	Exposure
Calcium oxide			
	Chronic NOEC 100 mg/l Fresh water	Fish - Fish	46 d
	Chronic NOEC 100 mg/l Fresh water	Fish - Fish	46 d
	Chronic NOEC 100 mg/l Fresh water	Fish - Fish	46 d
	Chronic NOEC 100 mg/l Fresh water	Fish - Fish	46 d
	Chronic NOEC 100 mg/l Fresh water	Fish - Fish	46 d
Zinc oxide			
	Acute LC50 2,246,000 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 1.1 mg/l Fresh water	Fish - Fish	96 h

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 14 of 19
Print Date 07/26/2016

	Acute LC50 2.525 mg/l Fresh water	Fish - Fish	96 h
	Acute LC50 3.969 mg/l Fresh water	Fish - Fish	96 h
	Acute LC50 98 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 0.622 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 1 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 1.25 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 0.481 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute IC50 46 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute IC50 63 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute IC50 1.85 mg/l Marine water	Aquatic plants - Algae	96 h
	Acute IC50 2.97 mg/l Marine water	Aquatic plants - Algae	96 h
	Acute IC50 2.36 mg/l Marine water	Aquatic plants - Algae	96 h
Sodium bicarbonate			
	Acute LC50 8,600,000 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 8,600,000 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 8,600,000 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 8,250,000 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 7,550 mg/l Fresh water	Fish - Fish	96 h
	Acute LC50 767.87 mg/l Marine water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 1,415.51 mg/l Marine water	Aquatic invertebrates. Crustaceans	48 h
	Acute EC50 650,000 µg/l Fresh water	Aquatic plants - Algae	96 h
	Chronic NOEC 576 mg/l Fresh water	Aquatic invertebrates. Daphnia	21 d
FA-83			
Remarks - Acute - Aquatic invertebrates.:	Dangerous for the environment: May cause long term adverse effects in the aquatic environment.		

Conclusion/Summary : Dangerous for the environment: May cause long term adverse effects in the aquatic environment.

Persistence and degradability

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 15 of 19
Print Date 07/26/2016

- Conclusion/Summary** : Not available.
- Conclusion/Summary** : Dangerous for the environment: May cause long term adverse effects in the aquatic environment.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Calcium oxide		2.34	low
Zinc oxide		60,960.00	high
Diphenyloxide-4,4'-disulfohydrazide		3.00	low
Azodicarbonamide	1	-	low

Mobility in soil

- Soil/water partition coefficient (KOC)** : Not available.
- Other adverse effects** : No known significant effects or critical hazards.

Section 13. Disposal considerations
--

- Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Acute hazardous waste "P" List: Not listed

United States - RCRA Toxic hazardous waste "U" List: Not listed

Section 14. Transport information
--

SAFETY DATA SHEET

**FA-83**

Version Number 1.0
Revision Date 07/25/2016

Page 16 of 19
Print Date 07/26/2016

U.S. DOT Classification : Not regulated for transportation.

ICAO/IATA : UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Oxide), 9, PGIII, Marine Pollutant

IMO/IMDG (maritime) : UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Oxide), 9, PGIII, Marine Pollutant

Section 15. Regulatory information

U.S. Federal regulations :

- United States - TSCA 12(b) - Chemical export notification:** None of the components are listed.
- United States - TSCA 4(a) - Final Test Rules:** Not listed
- United States - TSCA 4(a) - ITC Priority list:** Not listed
- United States - TSCA 4(a) - Proposed test rules:** Not listed
- United States - TSCA 4(f) - Priority risk review:** Not listed
- United States - TSCA 5(a)2 - Final significant new use rules:** Not listed
- United States - TSCA 5(a)2 - Proposed significant new use rules:** Not listed
- United States - TSCA 5(e) - Substances consent order:** Not listed
- United States - TSCA 6 - Final risk management:** Not listed
- United States - TSCA 6 - Proposed risk management:** Not listed
- United States - TSCA 8(a) - Chemical risk rules:** Not listed
- United States - TSCA 8(a) - Dioxin/Furane precursor:** Not listed
- United States - TSCA 8(a) - Chemical Data Reporting (CDR):** Not determined
- United States - TSCA 8(a) - Preliminary assessment report (PAIR):** Listed **Diphenyloxide-4,4'-disulfohydrazide**
- United States - TSCA 8(c) - Significant adverse reaction (SAR):** Not listed
- United States - TSCA 8(d) - Health and safety studies:** Not listed
- United States - EPA Clean water act (CWA) section 307 - Priority pollutants:** Listed **Zinc oxide**
- United States - EPA Clean water act (CWA) section 311 - Hazardous substances:** Listed
- United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances:** Not listed
- United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances:** Not listed
- United States - Department of commerce - Precursor chemical:** Not listed

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 17 of 19
Print Date 07/26/2016

Clean Air Act Section 112(b) : Not listed
 Hazardous Air Pollutants (HAPs)
 Clean Air Act Section 602 Class I Substances : Not listed
 Clean Air Act Section 602 Class II Substances : Not listed
 DEA List I Chemicals (Precursor Chemicals) : Not listed
 DEA List II Chemicals (Essential Chemicals) : Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification : Immediate (acute) health hazard
 Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Classification
Calcium oxide	1 - 1.04	AH
Zinc oxide	1 - 3	AH
Diphenyloxide-4,4'-disulfohydrazide	5 - 8.9	F, AH, CH
Sodium bicarbonate	10 - 25	AH
Azodicarbonamide	25 - 50	AH

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Zinc oxide	1314-13-2	1 - 3
Supplier notification	Zinc oxide	1314-13-2	1 - 3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

SAFETY DATA SHEET

FA-83

Version Number 1.0
Revision Date 07/25/2016

Page 18 of 19
Print Date 07/26/2016

State regulations

- Massachusetts** : The following components are listed:
Zinc oxide
Calcium oxide
- New York** : None of the components are listed.
- New Jersey** : The following components are listed:
Calcium oxide
Zinc oxide
Diphenyloxide-4,4'-disulfohydrazide
- Pennsylvania** : The following components are listed:
Zinc oxide

Calcium oxide

California Prop. 65

This PolyOne product does not contain any chemical known to the State of California to cause cancer, or birth defects or other reproductive harm, in concentrations that require a warning notice under California's Proposition 65. This statement relies in part on information provided by the buyer of this PolyOne product. PolyOne does not control or have complete knowledge of the end uses to which that buyer or any other entity in the chain of distribution and marketing may put this PolyOne product. Therefore, the buyer of this PolyOne product, each entity that uses this PolyOne product in formulating another product, and each entity in the chain of distribution and marketing of any product that includes the material in this PolyOne product must make its own decision as to giving a Proposition 65 warning.

United States inventory (TSCA 8b) : All components are listed or exempted.

Canada inventory : All components are listed or exempted.

International regulations

- International lists** :
- Australia inventory (AICS):** All components are listed or exempted.
 - Taiwan inventory (CSNN):** All components are listed or exempted.
 - Malaysia Inventory (EHS Register):** Not determined.
 - EINECS:** All components are listed or exempted.
 - Japan inventory:** All components are listed or exempted.
 - China inventory (IECSC):** All components are listed or exempted.
 - Korea inventory:** All components are listed or exempted.
 - New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
 - Philippines inventory (PICCS):** All components are listed or exempted.
- Chemical Weapons Convention List Schedule I Chemicals** : Not listed
Not listed
- Chemical Weapons Convention List Schedule II Chemicals** : Not listed
Not listed

SAFETY DATA SHEET

**FA-83**

Version Number 1.0
Revision Date 07/25/2016

Page 19 of 19
Print Date 07/26/2016

Chemical Weapons Convention : Not listed
List Schedule III Chemicals : Not listed

Section 16. Other information**History**

Date of printing : 07/26/2016
Date of issue/Date of revision : 07/25/2016
Date of previous issue : 00/00/0000
Version : 1.0

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.