

**EXTEND 1902****1. PRODUCT AND COMPANY IDENTIFICATION****Company**

Arkema Inc.  
900 First Avenue  
King of Prussia, Pennsylvania 19406

**Acrylic Monomers**

**Customer Service Telephone Number:** 1-800-338-1015  
(Monday through Friday, 8:30 AM to 5:30 PM EST)

**Emergency Information**

**Transportation:** CHEMTREC: (800) 424-9300  
(24 hrs., 7 days a week)  
**Medical:** Rocky Mountain Poison Center: (866) 767-5089  
(24 hrs., 7 days a week)

**Product Information**

**Product name:** EXTEND 1902  
**Synonyms:** Not available  
**Molecular formula:** Mixture  
**Chemical family:** Mixture  
**Product use:** Fuel additives

**2. HAZARDS IDENTIFICATION****Emergency Overview**

**Color:** brown, to, red  
**Physical state:** liquid  
**Odor:** pungent

**DANGER!**  
**COMBUSTIBLE LIQUID AND VAPOR.**  
**CAUSES EYE AND SKIN BURNS.**  
**MAY CAUSE BLINDNESS.**  
**HARMFUL IF ABSORBED THROUGH SKIN.**  
**MAY CAUSE ALLERGIC SKIN REACTION.**  
**CAUSES RESPIRATORY TRACT IRRITATION.**  
**MAY CAUSE HEADACHE, NAUSEA, DIZZINESS, DROWSINESS, LOSS OF CONSCIOUSNESS.**  
**PROLONGED OR REPEATED EXPOSURE CAN CAUSE LOSS OF SKIN COLOR (DEPIGMENTATION).**

**Potential Health Effects**

**Primary routes of exposure:**  
Inhalation and skin contact.

**Signs and symptoms of acute exposure:**  
Corrosive to skin and eyes. Causes burns. Irritating to respiratory system. May cause: Central nervous system effects: headache, nausea, dizziness, drowsiness, loss of consciousness. If swallowed, may cause severe irritation and injury to the mouth, throat and digestive tract. Prolonged or repeated exposure may cause: Allergic skin reaction:



redness, rash.. May also cause: dermatitis, depigmentation. Eye contact causes: irritation, excessive tearing, discoloration, ulceration, changes in vision. Inhalation may cause symptoms of: nosebleeds, breathing difficulties. (severity of effects depends on extent of exposure) .

**Skin:**

Moderately toxic. (data for residual acid) Corrosive. (based on components) May cause sensitization by skin contact.

**Inhalation:**

Irritating. (based on components)

**Eyes:**

Corrosive. (based on components)

**Medical conditions aggravated by overexposure:**

Respiratory disease or diminished respiratory capacity.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No.	Wt/Wt	OSHA Hazardous
1-Propene, oxidized, acrylic acid-fraction, distn. residues	655234-20-1	<= 100 %	Y
2-Propenoic acid	79-10-7	>= 30 - < 60 %	Y
2-Propenoic acid, 2-carboxyethyl ester	24615-84-7	>= 10 - < 30 %	Y
2-Propenoic acid, 3-(2-carboxyethoxy)-3-oxopropyl ester	107825-26-3	>= 5 - < 10 %	N
2,5-Furandione	108-31-6	< 5 %	Y
1,4-Benzenediol	123-31-9	< 5 %	Y

The substance(s) marked with a "Y" in the Hazard column above, are those identified as hazardous chemicals under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

This material is classified as hazardous under Federal OSHA regulation.

**4. FIRST AID MEASURES****Inhalation:**

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Skin:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Call a Poison Control Center. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eyes:**



In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately. Call a Poison Control Center.

**Ingestion:**

If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**5. FIRE-FIGHTING MEASURES**

**Flash point** > 141.6 °F (> 60.9 °C) (Method: ASTM D 93)

**Auto-ignition temperature:** Not determined

**Lower flammable limit (LFL):** Not determined

**Upper flammable limit (UFL):** Not determined

**Extinguishing media (suitable):**

Carbon dioxide (CO<sub>2</sub>), Water spray, Foam, Dry chemical

**Protective equipment:**

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

**Further firefighting advice:**

Fight fire from a protected location.

Explosion hazard

Cool closed containers exposed to fire with water spray.

Closed containers of this material may explode when subjected to heat from surrounding fire.

Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, and other flames and ignition sources at locations distant from material handling point.

**Fire and explosion hazards:**

When burned, the following hazardous products of combustion can occur:

Carbon oxides

A large amount of heat can be generated when monomers are exposed to a fire.

Heated sealed containers can explode.

**6. ACCIDENTAL RELEASE MEASURES**

**In case of spill or leak:**

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel.

Ventilate the area. Eliminate all ignition sources. Avoid generation of vapors. Contain and collect spillage with non-combustible absorbent material such as sodium bicarbonate, sodium carbonate, calcium carbonate, clean sand or non-acidic clay and then wet down (dampen) the mixture with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

**7. HANDLING AND STORAGE****Handling****General information on handling:**

Keep away from heat and flames.

Do not get in eyes, on skin, or on clothing.

Avoid breathing vapor or mist.

Keep container tightly closed.

Use only with adequate ventilation.

Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, and other flames and ignition sources at locations distant from material handling point.

Wash thoroughly after handling.

Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.

Emptied container retains vapor and product residue.

Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

**Storage****General information on storage conditions:**

This product should be stored in a closed container, away from direct sunlight, at ambient temperatures. An air space is required above the liquid in all containers; avoid storage under an oxygen-free atmosphere. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes which pertain to the specific local conditions of storage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.

**Storage stability – Remarks:**

The typical shelf-life for this product is 12 months. Storage of this product above the maximum temperature tolerance reduces the shelf life. The stability of this product should be checked periodically; typically every 90 days for bulk containers. Materials recommended for packaging include: stainless steel, aluminum, glass, HDPE, PP or PTFE.

**Storage incompatibility – General:**

Store away from sources of heat and light.

Store separate from: Free radical generators

Peroxides

Strong oxidizing agents

Amines

Rust

Anhydrides

Aldehydes

Strong bases

Mercaptans



Halides

Azides

Ethers

**Temperature tolerance – Do not store above:**  
86 °F (30 °C)

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Airborne Exposure Guidelines:**

**2-Propenoic acid (79-10-7)**

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 2 ppm  
Skin designation  
Remarks: Can be absorbed through the skin.

**2,5-Furandione (108-31-6)**

US. ACGIH Threshold Limit Values

Form: Inhalable fraction and vapor.  
Time Weighted Average (TWA): 0.01 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 0.25 ppm (1 mg/m<sup>3</sup>)

**1,4-Benzenediol (123-31-9)**

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 1 mg/m<sup>3</sup>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 2 mg/m<sup>3</sup>

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.



**Engineering controls:**

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

**Respiratory protection:**

Avoid breathing vapor or mist. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

**Skin protection:**

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing immediately and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

**Eye protection:**

Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye flushing equipment immediately available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	brown, to, red
<b>Physical state:</b>	liquid
<b>Odor:</b>	pungent
<b>pH:</b>	1 - 3
<b>Density:</b>	not determined
<b>Specific Gravity (Relative density):</b>	1.2 (68 °F( 20 °C))(Method:ASTM D 4052)
<b>Vapor pressure:</b>	1.60 - 20.21 mmHg (100.0 °F (37.8 °C))
<b>Vapor density:</b>	not determined
<b>Boiling point/boiling range:</b>	126 - 304 °F (52 - 151 °C) 20 mmHg
<b>Melting point:</b>	< 57 °F (< 14 °C)

**Solubility in water:** completely soluble

## 10. STABILITY AND REACTIVITY

### Stability:

This material is chemically stable under normal and anticipated storage, handling and processing conditions. However, this material can undergo hazardous polymerization. See HANDLING AND STORAGE section of this MSDS for specified conditions.

### Materials to avoid:

Free radical generators  
Peroxides  
Strong oxidizing agents  
Amines  
Rust  
Anhydrides  
Aldehydes  
Strong bases  
Mercaptans  
Halides  
Azides  
Ethers

### Conditions / hazards to avoid:

An uncontrolled polymerization may produce a rapid release of energy with the potential for an explosion of unvented closed containers or inadequately vented containers. This material polymerizes exothermically in the presence of heat, contamination, oxygen free atmosphere, free radicals, peroxides and inhibitor depletion liberating heat. Do NOT expose to ultraviolet light. Avoid direct sunlight.

### Hazardous decomposition products:

Thermal decomposition giving flammable and toxic products :  
Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

Data on this material and/or its components are summarized below.

### Data for 2-Propenoic acid (79-10-7)

#### Acute toxicity

##### Oral:

Slightly toxic. (rat) LD50 = 1,250 - 3,200 mg/kg.

##### Dermal:

Moderately toxic. (rabbit) LD50 = 295 - 750 mg/kg.

##### Inhalation:

No deaths observed. (rat) 1 h LC0 approx. 7 mg/l (2352 ppm). signs: lung effects, irritation (vapor)

Toxic. (rat) 4 h LC50 3.6 mg/l. lung effects, irritation (vapor)

Practically nontoxic. (rat) 4 h LC50 > 5.1 mg/l. lung effects, irritation, eye irritation (vapor)

**Skin Irritation:**

Corrosive. (rabbit) (3 min)

**Eye Irritation:**

Corrosive. (rabbit)

**Skin Sensitization:**

Not a skin sensitizer. Repeated skin exposure. (mouse) No skin allergy was observed (Irritation was observed.)

Not a skin sensitizer. Repeated skin exposure. (guinea pig) No skin allergy was observed

Skin sensitizer in presence of impurities. Guinea pig maximization test. (guinea pig) Skin allergy was observed.

**Repeated dose toxicity**

Drinking water administration to rat / affected organ(s): kidney, testes / signs: changes in food or water consumption, increased organ weight

Drinking water administration to rat / affected organ(s): stomach, lung, nose

Inhalation administration to rat and mouse / affected organ(s): nose / signs: tissue damage

Inhalation administration to rat / affected organ(s): lung

Repeated dermal administration to mouse / signs: skin irritation

**Carcinogenicity**

Chronic dermal administration to mouse / No increase in tumor incidence was reported.

Chronic drinking water administration to rat / No increase in tumor incidence was reported.

Classified by the International Agency for Research on Cancer as: Group 3: Unclassifiable as to carcinogenicity in humans.

**Genotoxicity**

**Assessment in Vitro:**

No genetic changes were observed in laboratory tests using: bacteria

Both positive and negative responses for genetic changes were observed in laboratory tests using: animal cells

**Genotoxicity**

**Assessment in Vivo:**

No genetic changes were observed in laboratory tests using: rats, mice, fruit flies

**Developmental toxicity**

Exposure during pregnancy. drinking water (rat) / No birth defects were observed. (delays in development)

Exposure during pregnancy. inhalation (rabbit) / No birth defects were observed. (at doses that produce effects)

---

in mothers)

**Reproductive effects**

Reproduction test. drinking water (rat) / No toxicity to reproduction.

**Other information**

Aspiration hazard

**Human experience****Inhalation:**

Respiratory tract: irritation, breathing difficulties.

Some rare cases of asthmatic reactions reported (irritant effects from the product).

**Human experience****Skin contact:**

No skin allergy was observed. (repeated or prolonged exposure) (studied using human volunteers)

**Data for 2-Propenoic acid, 2-carboxyethyl ester (24615-84-7)****Acute toxicity****Skin Irritation:**

Corrosive. (rabbit) Draize Test 8.0 / 8.0. (24 h) (occluded exposure)

**Human experience****Skin contact:**

Skin: Skin allergy was observed in some, but not all, cases.. (studied using human volunteers) Possible cross sensitization with other acrylates and methacrylates

**Data for 2,5-Furandione (108-31-6)****Acute toxicity****Oral:**

Slightly to moderately toxic. (rat) LD50 = 481 - 850 mg/kg.

**Dermal:**

Slightly toxic. (rabbit) LD50 = 2,620 mg/kg.

**Skin Irritation:**

Corrosive. (rabbit)

**Eye Irritation:**

Corrosive. (rabbit)

**Skin Sensitization:**

Repeated skin exposure. (guinea pig) No skin allergy was observed

**Repeated dose toxicity**

Subchronic inhalation administration to rat, hamster, monkey / affected organ(s): eye, nose / signs: irritation, inflammation, changes in body weight

Subchronic oral administration to rat / affected organ(s): liver, kidney / signs: changes in organ structure or function / (extent of injury depends on severity of exposure)

---

2 years dietary administration to rat / No adverse effects reported.

**Carcinogenicity**

Chronic subcutaneous injection administration / Increased incidence of tumors was reported.

Dermal administration to mouse / No increase in tumor incidence was reported.

**Genotoxicity****Assessment in Vitro:**

No genetic changes were observed in laboratory tests using: bacteria

Genetic changes were observed in laboratory tests using: animal cells

**Genotoxicity****Assessment in Vivo:**

No genetic changes were observed in laboratory tests using: animals

**Developmental toxicity**

Exposure during pregnancy. oral (rat) / No birth defects were observed.

**Reproductive effects**

Multiple generation reproduction test. oral (rat) / No toxicity to reproduction

**Human experience****Inhalation:**

Respiratory tract: irritation, bronchitis, asthma, accumulation of fluid in the lungs. (based on reports of occupational exposure to workers)

Nose: severe irritation. (studied using human volunteers)

Blood: hemolytic anemia. (based on reports of occupational exposure to workers)

**Human experience****Skin contact:**

Skin: severe irritation.

Skin allergy was observed.. (based on reports of occupational exposure to workers)

**Human experience****Eye contact:**

Moderately to severely irritating.. (based on reports of occupational exposure to workers) (extent of injury depends on severity of exposure)

**Data for 1,4-Benzenediol (123-31-9)****Acute toxicity****Oral:**

Slightly to moderately toxic. LD50 between 298 - 1,090 mg/kg.

**Dermal:**

---

No more than moderately toxic. LD50 > 900 mg/kg.

**Skin Irritation:**

Slightly irritating. (rabbit)

**Eye Irritation:**

Slightly irritating. (rabbit)

**Repeated dose toxicity**

Oral administration to rat and mouse / signs: nervous system effects, tremors, convulsions, death, changes in blood cell counts

**Carcinogenicity**

Oral administration to rat, mouse / affected organ(s): kidney, liver, blood / Increased incidence of tumors was reported.

Classified by the International Agency for Research on Cancer as: Group 3: Unclassifiable as to carcinogenicity in humans.

**Genotoxicity**

**Assessment in Vitro:**

Generally, no genetic changes were observed in laboratory studies using: bacteria

Genetic changes were observed in laboratory tests using: animal cells, human cells

**Genotoxicity**

**Assessment in Vivo:**

Genetic changes were observed in laboratory tests using: animals

**Developmental toxicity**

By oral route (rat) / No birth defects were observed.

By oral route (rabbit) / Birth defects were observed. Toxic effects for foetal development at toxic maternal doses

**Reproductive effects**

Two generation reproduction study. oral (rat) / No toxicity to reproduction

**Human experience**

**General:**

Central nervous system effects: headache, nausea, dizziness, drowsiness, loss of consciousness.

**Human experience**

**Inhalation:**

Respiratory tract: decreased lung function. Exposure to other materials makes the association questionable.

**Human experience**

**Skin contact:**

Skin: dermatitis, depigmentation, discoloration. (severity of effects depends on extent of exposure) (repeated or prolonged exposure)

**Human experience**

**Eye contact:**

Eyes: irritation, sensitivity to light, excessive tearing, corneal opacity, ulceration. (severity of effects depends on extent of exposure) (repeated or prolonged exposure)

---

**12. ECOLOGICAL INFORMATION****Chemical Fate and Pathway**

Data on this material and/or its components are summarized below.

**Data for 2-Propenoic acid (79-10-7)****Biodegradation:**

Biodegradable. (28 d) biodegradation 81 %

**Octanol Water Partition Coefficient:**

log Pow = 0.16

**Data for 2,5-Furandione (108-31-6)****Biodegradation:**

Readily biodegradable (aerobic systems)

**Data for 1,4-Benzenediol (123-31-9)****Biodegradation:**

Readily biodegradable. (14 d) 86 % / OECD Guideline 301 C

**Bioaccumulation:**

BCF = 40 (Leuciscus idus (Golden orfe))

**Octanol Water Partition Coefficient:**

log Pow = 0.59 (measured)

**Ecotoxicology**

Data on this material and/or its components are summarized below.

**Data for 2-Propenoic acid (79-10-7)****Aquatic toxicity data:**

Practically nontoxic. *Cyprinodon variegatus* (sheepshead minnow) 96 h LC50 = 236 mg/l

Slightly toxic. *Oncorhynchus mykiss* (rainbow trout) 96 h LC50 = 27 mg/l

**Aquatic invertebrates:**

Slightly toxic. Mysid shrimp 96 h LC50 = 97 mg/l

Slightly toxic. *Daphnia magna* (Water flea) 48 h EC50 = 95 mg/l

**Algae:**

Highly toxic. Algae 96 h EC50 = 0.17 mg/l

**Data for 2,5-Furandione (108-31-6)****Aquatic toxicity data:**

Slightly toxic. *Pimephales promelas* (fathead minnow) LC50 = 84 mg/l

Slightly toxic. *Oncorhynchus mykiss* (rainbow trout), Bluegill sunfish LC50 = 75 mg/l

Practically nontoxic. *Gambusia affinis* (Mosquito fish) LC50 = 230 mg/l

**Aquatic invertebrates:**



Practically nontoxic. *Daphnia magna* (Water flea) LC50 = 330 mg/l

**Algae:**

Slightly toxic. Algae LC50 = 29 mg/l

**Data for 1,4-Benzenediol (123-31-9)****Aquatic toxicity data:**

Highly toxic. *Pimephales promelas* (fathead minnow) 96 h LC50 = 0.044 mg/l

Highly toxic. *Oncorhynchus mykiss* (rainbow trout) 96 h LC50 = 0.639 mg/l

Highly toxic. *Danio rerio* (zebra fish) 96 h LC50 = 0.17 mg/l

**Aquatic invertebrates:**

Highly toxic. *Daphnia magna* (Water flea) 48 h EC50 = 0.16 - 0.29 mg/l

**Algae:**

Highly toxic. *Selenastrum capricornutum* 72 h EC50 = 0.335 mg/l

**13. DISPOSAL CONSIDERATIONS****Waste disposal:**

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

**14. TRANSPORT INFORMATION****US Department of Transportation (DOT)**

UN Number : 2922  
Proper shipping name : Corrosive liquids, toxic, n.o.s.  
Technical name : (Acrylic acid)  
Class : 8  
Subsidiary hazard class : (6.1)  
Packaging group : II  
Marine pollutant : no

**International Maritime Dangerous Goods Code (IMDG)**

UN Number : 2922  
Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S.  
Technical name : (ACRYLIC ACID)  
Class : 8  
Subsidiary hazard class : (6.1)  
Packaging group : II  
Marine pollutant : no  
Flash point : > 141.6 °F (> 60.9 °C)

**15. REGULATORY INFORMATION****Chemical Inventory Status**

EU. EINECS	EINECS	Does not conform
US. Toxic Substances Control Act	TSCA	The components of this product are all on the TSCA Inventory.
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	Does not conform
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 144)	DSL	This product contains one or several components that are not on the Canadian DSL nor NDSL lists.
Japan. Kashin-Hou Law List	ENCS (JP)	Does not conform
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	Does not conform
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	Does not conform
China. Inventory of Existing Chemical Substances	IECSC (CN)	Does not conform
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	NZIOC	Does not conform

**United States – Federal Regulations****SARA Title III – Section 302 Extremely Hazardous Chemicals:**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>SARA Reportable Quantities</u>	<u>SARA Threshold Planning Quantity</u>
1,4-Benzenediol	123-31-9	100 lbs	500 lbs 10000 lbs

**SARA Title III - Section 311/312 Hazard Categories:**

Acute Health Hazard, Fire Hazard, Reactivity Hazard



## Material Safety Data Sheet

### EXTEND 1902

#### SARA Title III – Section 313 Toxic Chemicals:

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>De minimis concentration</u>	<u>Reportable threshold:</u>	
2-Propenoic acid	79-10-7		1.0 %	10000 lbs (Otherwise used (non-manufacturing/processing)) 25000 lbs (Manufacturing and processing)
2,5-Furandione	108-31-6		1.0 %	10000 lbs (Otherwise used (non-manufacturing/processing)) 25000 lbs (Manufacturing and processing)
1,4-Benzenediol	123-31-9		1.0 %	10000 lbs (Otherwise used (non-manufacturing/processing)) 25000 lbs (Manufacturing and processing)

#### Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Reportable quantity</u>
Benzoic acid	65-85-0	5000 lbs
2-Propenoic acid	79-10-7	5000 lbs
2,5-Furandione	108-31-6	5000 lbs
1,4-Benzenediol	123-31-9	100 lbs

#### OSHA Regulated Carcinogens (NTP, IARC, OSHA Listed):

##### NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

##### IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

##### OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### United States – State Regulations

**EXTEND 1902****New Jersey Right to Know**

<u>Chemical Name</u>	<u>CAS-No.</u>
2-Propenoic acid	79-10-7
2,5-Furandione	108-31-6
1,4-Benzenediol	123-31-9

**New Jersey Right to Know – Special Health Hazard Substance(s)**

<u>Chemical Name</u>	<u>CAS-No.</u>
2-Propenoic acid	79-10-7

**New Jersey Right to Know – Special Health Hazard Substance(s)**

<u>Chemical Name</u>	<u>CAS-No.</u>
1,4-Benzenediol	123-31-9

**Pennsylvania Right to Know**

<u>Chemical Name</u>	<u>CAS-No.</u>
2-Propenoic acid	79-10-7
2,5-Furandione	108-31-6
1,4-Benzenediol	123-31-9
2-Propenoic acid, 2-carboxyethyl ester	24615-84-7
1-Propene, oxidized, acrylic acid-fraction, distn. residues	655234-20-1
2-Propenoic acid, 3-(2-carboxyethoxy)-3-oxopropyl ester	107825-26-3

**Pennsylvania Right to Know – Environmentally Hazardous Substance(s)**

<u>Chemical Name</u>	<u>CAS-No.</u>
2-Propenoic acid	79-10-7
2,5-Furandione	108-31-6
1,4-Benzenediol	123-31-9

**California Prop. 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

**16. OTHER INFORMATION****Miscellaneous:**

Other information: Refer to National Fire Protection Association (NFPA) Codes 30, 70, 77, and 497 and OSHA 29 CFR 1910.106, for safe handling.

**Latest Revision(s):**

Revised Section(s): Updated Corporate Address Change and Rocky Mountain Poison Center Phone Number



## Material Safety Data Sheet

### EXTEND 1902

---

Reference number: 000000043499  
Date of Revision: 07/11/2011  
Date Printed: 07/11/2011

Arkema Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use are beyond the control of Arkema Inc., Arkema Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.