1. PRODUCT AND COMPANY IDENTIFICATION

Company

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

Altuglas International

Customer Service Telephone Number:	(800) 523-1532 (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:	ELIUM®
Synonyms:	RT300
Molecular formula:	Mixture
Chemical family:	methacrylates
Product use:	Raw material for industry, Polymer

2. HAZARDS IDENTIFICATION

Emergency Overview

Color:	Clear - colourless
Physical state:	liquid
Odor:	Acrylates (slight)

WARNING!
FLAMMABLE LIQUID AND VAPOR.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
MAY CAUSE HEADACHE, NAUSEA, DIZZINESS, DROWSINESS, LOSS OF CONSCIOUSNESS.
PROLONGED CONTACT MAY CAUSE SHORT-TERM LOSS OF FEELING IN THE FINGERS.

Potential Health Effects

Primary routes of exposure:
Inhalation and skin contact.

Signs and symptoms of acute exposure:
May cause irritation of respiratory tract. Prolonged or repeated exposure may cause: Allergic skin reaction: redness, rash. Central nervous system effects: headache, nausea, dizziness, drowsiness, loss of consciousness. Inhalation may cause symptoms of: breathing difficulties.

Skin:
Practically nontoxic. Slightly irritating. (based on animal studies) May cause allergic skin reaction.

Inhalation:
Practically nontoxic. (based on animal studies) Irritating. (vapor or mist)

Eyes:
Slightly irritating. (based on animal studies)

Ingestion:
Practically nontoxic. (based on animal studies)

Repeated exposure:
Effects have been reported or are anticipated after prolonged or repeated exposure. Can cause: nervous system effects, tingling, loss of feeling, (affects fingers), (based on human experience).

Medical conditions aggravated by overexposure:
Respiratory disease or diminished respiratory capacity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	OSHA Hazardous
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	> 50 - < 85 %	Y
Acrylic copolymers	Proprietary*	> 10 - < 50 %	N

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).

*The specific chemical identity is withheld because it is trade secret information of Arkema Inc.

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 soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:
Immediately flush eye(s) with plenty of water.

Ingestion:
If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

5. FIREFIGHTING MEASURES

Flash point:

Auto-ignition temperature: 815 °F (435 °C) (data for 2-Propenoic acid, 2-methyl-, methyl ester (80-62-6))

Lower flammable limit (LFL): 2.1 %(V)

Upper flammable limit (UFL): 12.5 %(V)

Extinguishing media (suitable):
Water spray, Carbon dioxide (CO2), 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
Closed containers of this material may explode when subjected to heat from surrounding fire.
Cool closed containers exposed to fire with water spray.

Fire and explosion hazards:
When burned, the following hazardous products of combustion can occur:
Carbon oxides
Hazardous organic compounds
A large amount of heat can be generated when monomers are exposed to a fire.
Vapors can travel to a source of ignition and flash back.

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, sparks and flames.
Avoid breathing vapor or mist.
Avoid prolonged or repeated contact with skin.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Emptied container retains vapor and product residue.
Follow label warnings even after container is emptied.
RESIDUAL VAPORS MAY EXPLODE ON IGNITION.
Container hazardous when empty.
DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.
Improper disposal or reuse of this container may be dangerous and/or illegal.
Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.

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 of this product above the maxium temperature tolerance reduces the shelf life.

Storage incompatibility – General:
This material polymerizes exothermically in the presence of heat, contamination, oxygen free atmosphere, free radicals, peroxides and inhibitor depletion liberating heat. Store separate from: Acids

Bases

Oxidizing agents

Reducing agents

Temperature tolerance – Do not store above:
86 ℉ (30 ℃)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

2-Propenoic acid, 2-methyl-, methyl ester (80-62-6)

US. ACGIH Threshold Limit Values

time weighted average	50 ppm
Short Term Exposure Limit (STEL):	100 ppm

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

PEL:	100 ppm (410 mg/m3)

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 recommended). 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 face shield and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

Eye protection:
Use good industrial practice to avoid eye contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Clear - colourless
Physical state:	liquid
Odor:	Acrylates (slight)
pH:	not applicable
Density:	0.943 g/cm3 (68 °F (20 °C))

Vapor pressure:	1,500 mmHg (79 °F (26 °C)) (data for 2-Propenoic acid, 2-methyl-, methyl ester (80-62-6))
Vapor density:	No data available
Boiling point/boiling range:	212 °F (100 °C) (data for 2-Propenoic acid, 2-methyl-, methyl ester (80-62-6))
Melting point/range:	-54 °F (-48 °C) (data for 2-Propenoic acid, 2-methyl-, methyl ester (80-62-6))
Solubility in water:	15.3 g/l 68 °F (20 °C) (data for 2-Propenoic acid, 2-methyl-, methyl ester (80-62-6))

10. STABILITY AND REACTIVITY

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

Materials to avoid:
Free radical generators
Peroxides
Acids
Bases
Oxidizing agents
Reducing agents

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. Hazardous polymerization may occur upon depletion of inhibitor. This material polymerizes exothermically in the presence of heat, contamination, oxygen free atmosphere, free radicals, peroxides and inhibitor depletion liberating heat.

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, 2-methyl-, methyl ester (80-62-6)

Acute toxicity

Oral:
Practically nontoxic. (rat) LD50 = 7,900 - 9,400 mg/kg.

Dermal:
Practically nontoxic. (rabbit) LD50 > 5,000 mg/kg.

Inhalation:
Practically nontoxic. (rat) 4 h LC50 = 30 mg/l.

Practically nontoxic. (rat) 2 h LC50 = 71 mg/l.

signs: respiratory irritation, breathing difficulties, anesthetic effects

Skin Irritation:
Slightly irritating. (rabbit)

Eye Irritation:
Slightly irritating. (rabbit)

Skin Sensitization:
Skin sensitizer. Guinea pig maximization test. (guinea pig) Skin allergy was observed.

Skin sensitizer. LLNA: Local Lymph Node Assay. (mouse) Skin allergy was observed.

Possible cross sensitization with other acrylates and methacrylates.

Repeated dose toxicity
Chronic inhalation administration to rat and hamster / affected organ(s): olfactory tissue

Subchronic inhalation administration to rat and mouse / affected organ(s): bone marrow, kidney, liver, nasal tissues, respiratory tract, central nervous system, peripheral nervous system, olfactory tissue / signs: decreased survival / (Repeated exposure at high concentrations)

Repeated oral administration to rat / affected organ(s): kidney, liver, stomach, nervous system

Chronic drinking water administration to rat / affected organ(s): kidney / signs: increased organ weight

Repeated dermal application administration to rat, rabbit / signs: irritation

Carcinogenicity
Chronic inhalation administration to rat and mouse / affected organ(s): lung, upper respiratory tract / signs: fibrosis, nasal lesions affecting the sense of smell / No increase in tumor incidence was reported. (increased mortality)

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

Repeated dermal administration to rat / affected organ(s): skin / No increase in tumor incidence was reported.

Repeated dietary administration to dog / No increase in tumor incidence was reported.

Reproductive effects
inhalation (mouse) / No toxicity to reproduction
oral (rat) / No toxicity to reproduction

Human experience
General:
Epidemiology studies have not shown an increase in cancer .

Human experience

Inhalation:
Respiratory system: irritation, asthma-like symptoms. (based on reports of occupational exposure to workers)
Dust and/or vapor are reported to cause irritation when proper industrial hygiene controls/procedures are not used.

Human experience
Skin contact:
Skin: dermatitis, numbness, tingling, peripheral neuropathy. Skin allergy was observed. (based on reports of occupational exposure to workers)

Human experience
Eye contact:
Eyes: Lachrymation, irritation. (based on reports of occupational exposure to workers)

Data for Acrylic copolymers (Proprietary)

Other information
The information presented is from a representative material with a similar structure. The results vary depending on the size and composition of the test substance.
Effects due to processing releases or residual monomer:
Possible cross sensitization with other acrylates and methacrylates

12. ECOLOGICAL INFORMATION

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

Data for 2-Propenoic acid, 2-methyl-, methyl ester (80-62-6)

Octanol Water Partition Coefficient:
log Pow = 1.38

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

Data for 2-Propenoic acid, 2-methyl-, methyl ester (80-62-6)

Aquatic toxicity data:
Practically nontoxic. Pimephales promelas (fathead minnow) 96 h LC50 between 159 - 499 mg/l
Practically nontoxic. Lepomis macrochirus (Bluegill sunfish) 96 h LC50 between 232 - 368 mg/l
Practically nontoxic. Poecilia reticulata (guppy) 96 h LC50 = 368 mg/l
Practically nontoxic. Carassius auratus (goldfish) 96 h LC50 between 277 - 423 mg/l
No more than slightly toxic. Oncorhynchus mykiss (rainbow trout) 96 h LC50 > 79 mg/l

Aquatic invertebrates:
Slightly toxic. Daphnia magna (Water flea) 48 h EC50 = 69 mg/l
Practically nontoxic. Daphnia magna (Water flea) 24 h LC50 = 1,760 mg/l

Chronic toxicity to fish:
Danio rerio (zebra fish) 35 d NOEC (Early-life Stage) 9.4 mg/l

Chronic toxicity to aquatic invertebrates:
Daphnia magna (Water flea) 21 d NOEC 37 mg/l

Chronic toxicity to microorganisms:
Bacteria 14 d (No effect concentration) 100 mg/l

13. DISPOSAL CONSIDERATIONS

Waste disposal:
Disposal via incineration is recommended.Dispose of in accordance with federal, provincial and local regulations. Consult a regulatory specialist to determine appropriate provincial 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	:	1247
Proper shipping name	:	Methyl methacrylate monomer, stabilized, mixture
Class	:	3
Packaging group	:	II
Marine pollutant	:	no

International Maritime Dangerous Goods Code (IMDG)

UN Number	:	1247
Proper shipping name	:	METHYL METHACRYLATE MONOMER, STABILIZED, MIXTURE
Class	:	3
Packaging group	:	II
Marine pollutant	:	no

15. REGULATORY INFORMATION

Chemical Inventory Status

EU. EINECS	EINECS	Conforms to
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	Conforms to
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	This product contains one or several components listed in the Canadian NDSL list. All other components are on the DSL list.
Japan. Kashin-Hou Law List	ENCS (JP)	Conforms to
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to

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

United States – Federal Regulations

SARA Title III – Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:
Acute Health Hazard, Chronic Health Hazard, Fire Hazard, Reactivity Hazard

SARA Title III – Section 313 Toxic Chemicals:
The following components are subject to reporting levels established by SARA Title III, Section 313:

Chemical Name	CAS-No.	De minimis concentration	Reportable threshold:
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	1.0 %	25000 lbs (Manufacturing and processing) 10000 lbs (Otherwise used (non-manufacturing/processing))

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

Chemical Name	CAS-No.	Reportable quantity
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	1000 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

New Jersey Right to Know

Chemical Name	CAS-No.
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6

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

Chemical Name	CAS-No.
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6

Pennsylvania Right to Know

Chemical Name	CAS-No.
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6
Acrylic copolymers	Proprietary
2-Propenoic acid, ethyl ester	140-88-5

Pennsylvania Right to Know – Environmentally Hazardous Substance(s)

Chemical Name	CAS-No.
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6
2-Propenoic acid, ethyl ester	140-88-5

Pennsylvania Right to Know – Special Hazardous Substance(s)

Chemical Name	CAS-No.
2-Propenoic acid, ethyl ester	140-88-5

California Prop. 65
WARNING! This product contains a chemical known to the State of California to cause cancer.

Chemical Name	CAS-No.
2-Propenoic acid, ethyl ester	140-88-5

California Prop. 65
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Chemical Name	CAS-No.
Methanol	67-56-1

16. OTHER INFORMATION

Latest Revision(s):

Revised Section(s):	Revised section 1 and 16
Reference number:	000000081634
Date of Revision:	03/20/2014
Date Printed:	03/20/2014

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