



SAFETY DATA SHEET
U.S. Department of Labor
Occupational Safety & Health Administration

Clearcoat 44

SECTION 1 - IDENTIFICATION

MANUFACTURER: Andek Corporation
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In an emergency, contact CHEMTREC 1-800- 424-9300;
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PRODUCT IDENTIFIER: Clearcoat 44
RECOMMENDED USE: Industrial Protective and Maintenance Coating

SECTION 2 – HAZARD IDENTIFICATION

HAZARD CLASSIFICATION:

Skin: Sensitization – Category 1

Eyes: Irritant – Category 2A

Inhalation: May cause sensitization – Category 1 / Toxicity – Category 2A

Carcinogenicity: Category 2

SIGNAL WORD: Danger

HAZARD STATEMENTS:

- Contains monomeric isophorone diisocyanate.
- Causes skin irritation.
- May cause allergic skin reaction
- May cause allergic respiratory reaction
- May cause eye irritation.
- May be harmful if aerosol or mist is inhaled.
- Closed containers may explode under extreme heat or when contaminated with water.
- Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Toxic gases / fumes are given off during burning or thermal decomposition.
- **Do Not** seal containers that have been contaminated with water.
- Flammable liquid and vapor.

PICTOGRAMS:



PRECAUTIONARY STATEMENTS:

Prevention:

- **Do Not** handle until all safety precautions have been read and understood.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Protect from moisture.
- **Do Not** spray on an open flame or other ignition source.
- Use explosion-proof electrical/ventilating/light/equipment.
- Take precautionary measures against static discharge.
- Avoid breathing spray.
- **Do Not** get in eyes, on skin, or on clothing
- Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- Wash contaminated clothing before reuse.
- Rinse skin with water/shower.
- In case of fire use water fog, carbon dioxide, foam or dry chemical to extinguish.
- Rinse mouth. **Do Not** induce vomiting.
- If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing
- If inhaled: Remove person to fresh air and keep comfortable for breathing.

Storage:

- Store in a well ventilated place.
- Keep container tightly closed.

Disposal:

- Waste disposal should be in accordance with existing federal, state and local environmental control laws.
- Incineration is the preferred method.

SECTION 3 – COMPOSITION

CHEMICAL NAME	CAS #	APPROX %
Isophorone Diisocyanate Homopolymer	53880-05-0	43.0
tert-Butyl Acetate	540-88-5	36.0
Naphtha Light Aromatic Solvent	64742-95-6	10.0
Methyl n-Amyl Ketone	110-43-0	10.0
Isophorone Diisocyanate	4098-71-9	<1.0
1,2,4 - Trimethylbenzene	95-63-6	<1.0
Dipropylene Glycol	25265-71-8	<1.0

SECTION 4 – FIRST AID MEASURES

Skin:

- For skin contact wipe away excess material with dry towel then wash affected areas with plenty of water, and soap if available, for several minutes.
- Get medical attention if irritation occurs.
- Remove contaminated clothing and launder before reuse.
- Remove contaminated shoes and discard.

Eyes:

- In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

Inhalation:

- If inhaled, remove to fresh air.
- If not breathing give artificial respiration, preferably mouth-to-mouth.
- If breathing is difficult oxygen should be administered by qualified personnel.
Call a physician or transport to a medical facility.

Ingestion:

- If swallowed, give 1-2 glasses of water, but **Do Not** induce vomiting.
- **Do Not** give anything by mouth to an unconscious or convulsing person.
- Get medical attention.

SECTION 5 – FIRE-FIGHTING MEASURES

Flash point (METHOD USED): 97°F. Closed Cup (ASTM D50).

Flammable limits: Lel 0.9; Uel 6.0.

Extinguishing media: Carbon dioxide, dry chemical, foam

Special fire fighting procedures: If excessive fumes or smoke is encountered, wear self-contained breathing apparatus and full protective equipment.

Unusual fire & explosion hazards: Sealed containers may build up pressure if exposed to heat (fire). Water can be used to cool the exterior of the containers.

Decomposition products: Oxides of carbon and nitrogen, possible HCN and polyurethane combustion compounds

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures:

- Wear appropriate protective equipment (See Section 8).

Environmental Precautions:

- Prevent from entering sewers, waterways or low areas.
- Prevent contamination of soil.

Spill Procedures:

- Remove all sources of ignition and ventilate the area.
- Vapors are much heavier than air and as such will accumulate in low-lying areas, presenting a hazard to anyone entering such places. Low-lying areas should be ventilated and checked before permitting access.
- Soak up residue with an absorbent such as clay or sand. Place in a non-leaking container for proper disposal according to federal, state and local regulations.
- Clean up spill area with a decontamination solution made up of 50% isopropyl alcohol, 45% water and 5% concentrated ammonia solution. Solution should cover the area for at least an hour.
- Allow for ventilation of containers with spill cleanup as CO₂ generation will occur with clean up solution.

SECTION 7 – HANDLING & STORAGE

Precautions for safe handling:

- Wear appropriate protective equipment. See Section 8 for normal handling recommendations.
- Avoid contact with eyes, skin, and clothing.
- Use in well ventilated area.
- Ground and bond containers before transferring liquid.

Recommendations on the conditions for safe storage:

- Flammable Storage.
- Keep containers tightly closed.
- Store in a cool dry place.
- Ground equipment to prevent static build-up.
- Ground containers when pouring or transferring.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

CHEMICAL NAME	PEL	TLV
Isophorone Diisocyanate	N/A	0.005 ppm
1,2,4 - Trimethylbenzene	N/A	25 ppm
Methyl Amyl Ketone	100 ppm	50 ppm
tert-Butyl Acetate	N/A	200 ppm
Cumene	N/A	50 ppm

Engineering controls:

- Use local exhaust ventilation to assure that isophorone diisocyanate levels in the air are below established exposure limits.

Individual protection measures:

- Use Viton or 4H gloves.
- Long sleeved clothing and apron.

Inhalation protection:

- In operations where the exposure limits can be exceeded, wear a NIOSH approved respirator selected by a technically qualified person.
- If a respirator is worn, OSHA requires compliance with its respiratory protection program (29 CFR 1910.134).

Eye protection:

- Safety glasses (with side shields)

Other hygienic practices and protective equipment:

- Use proper ventilation.
- Follow good industrial chemical hygiene practices.
- Safety showers and eyewash stations should be available.
- Educate and train employees in safe use of product.
- Remove clothing or shoes that have become wet with this product. Launder clothing before reuse.
- Decontaminate or discard shoes.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear Liquid

Physical state: Liquid

Color: Transparent to slightly amber

Odor: Pungent, sweet

Odor threshold: 0.07ppm

pH: N/A

Melting point/freezing point: -60°F

Initial boiling point and boiling range: 190°F

Flash point: 97°F

Evaporation rate: 0.2 (Butyl Acetate = 1)

Flammability (solid, gas) Flammable

Upper/lower flammability or explosive limits: 6.0 / 0.9

Vapor pressure: 0.8 kPa (6 mmHg) at 68°F

Vapor density: 4 (Air = 1)

Relative density: 0.96 g / cm³ at 60°F

Solubility: Insoluble: will react with water to form CO²

Partition coefficient: n-octanol/water: N/A

Auto-ignition temperature: 470°F

Decomposition temperature: N/A

Viscosity: 50 centipoises at 20°C

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability:

- Stable under normal conditions of handling, use and transportation.

Hazardous Polymerization:

- Will not occur under normal conditions.
- Avoid contact with water or moisture.
- Polymerization will occur releasing CO².
- Pressure buildup in closed container may occur

Conditions to Avoid:

- Avoid contact with heat, sparks, open flame, and static discharge.

Materials to Avoid:

- Avoid contact with Moisture and water as polymerization will occur to release CO² which may pressurize non-vented containers.
- Avoid contact with alcohols, amines, acids, strong oxidizing agents and strong bases.

Hazardous Decomposition Products:

- Combustion of the dried polymer may release; carbon dioxide, carbon monoxide, oxides of nitrogen and traces of HCN.

Additional Guidelines: Not applicable.

SECTION 11 – TOXICOLOGICAL INFORMATION

Numerical measures of toxicity:

CHEMICAL NAME	Oral LD50	Dermal LD50	Inhalation LC50
IPDI	Rat 4825 mg/kg	Rabbit >7000 mg/kg	Rat 0.04 mg / l / 4 hours (literature value for aerosols)
MAK	Rat 1600 mg/kg	Rabbit 12.6 ml/kg	Rat 2000 ppm / 4 hrs

Aromatic 100 - No additional test data found for this product.

Chronic Health Effects have not been determined. The following information is available on major components:

CHEMICAL NAME	Oral LOEL	Oral NOEL	Inhalation NOEL
IPDI - No additional test data found for this product.			
MAK - Based on animal data and structure-activity relationships, this product is not expected to cause nervous system damage.	13 weeks, rat: 100 mg/kg (minor target organ effects: Kidney) (increase in weight: liver)	13 weeks, rat: 20 mg/kg/day. 12 weeks, rat: 0.5% in drinking water (highest concentration tested).	9 months, rat: 1025 ppm (highest concentration tested) 9 months, monkey: 1025 ppm (highest concentration tested)

Aromatic 100 - No additional test data found for this product.

Aggravated Conditions: Not determined.

Carcinogenicity:

Carcinogenic effects of this product have not been determined. The following information is available on major components:

- IPDI - Not Classified as a carcinogen.
- MAK - No additional test data found for this product.
- Aromatic 100 - No additional test data found for this product.

Reproductive/Developmental Toxicity:

Reproductive / Developmental health effects of this product have not been determined. The following information is available on major components:

- IPDI - No additional test data found for this product.
- MAK - No additional test data found for this product.
- Aromatic 100 - No additional test data found for this product.

Mutagenicity:

Mutagenicity of this product has not been determined. The following information is available on major components:

- IPDI - No additional test data found for this product.
- MAK - No additional test data found for this product.
- Aromatic 100 - No additional test data found for this product.

Other: Aspiration Hazard

The mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

SECTION 12 – ECOLOGICAL INFORMATION

Data from toxicity test

CHEMICAL NAME	Algae/Aquatic Plants - EC50	Fish - LC50	Crustacea (Aquatic Invertebrates) EC50
Isophorone Diisocyanate	118.7 mg/l Scenedesmus subspicatus 72 h	1.8 mg/l Leuciscus idus 48 h	83.7 mg/l Daphnia magna 24 h
Methyl Amyl Ketone	N/A	131.0mg/l Pimephales promelas 96h	N/A
Aromatic 100	N/A	9.22 mg/l Oncorhynchus mykiss 96 h	6.14 mg/l Daphnia magna 48 h
1,2,4 - Trimethylbenzene	N/A	7.72 mg/l Pimephales promelas 96 h	6.14 mg/l Daphnia magna 48 h

Biodegradation:

Not readily biodegradable (by OECA criteria). Moderately / partial biodegradable.

Bioaccumulation potential:

Accumulation in organisms is not to be expected.

Mobility in soil:

Absorption into solid soil phase is expected.

Other adverse effects:

Do Not allow to enter soil, waterways or waste water channels. Inhibition of degradation activity in activated sludge is not to be anticipated during introduction at low concentrations.

SECTION 13 – DISPOSAL CONSIDERATIONS

Other Disposal Considerations:

Do Not dump into any sewers, on the ground or into any body of water.

Contaminated Packaging:

Empty drums may contain harmful vapors and residue. If empty container retains product residues, all label precautions must be observed. Transport with all closures in place. Dispose according to national or local regulations. Empty containers may contain explosive vapors. Keep from spark flame, and heat sources. **Do Not** Cut or Weld.

RCRA Status: (Classification applies to the product as sold.)

D001 (Ignitable) D003 (Reactive)

SECTION 14 – TRANSPORT INFORMATION

UN #	1263
UN proper shipping name:	Paint
Hazard class:	3
Packing group:	III
Environmental hazards:	Not a marine pollutant
Guidance on transport in bulk:	N/A

Transport labels required: Flammable liquid. (In the U.S., this material may be re-classified as a combustible liquid and is not regulated in containers less than 119 gallons via surface transportation.)

SECTION 15 – REGULATORY INFORMATION

US Federal Regulation:

CHEMICAL NAME	CERCLA Reportable Quantity	CERCLA/SARA 302 Ext. Haz. Substances	TSCA - Sect. 12(b) Export Notification	SARA 313 Chemicals
Methyl Amyl Ketone	N/A	N/A	Not Listed	
Isophorone Diisocyanate Homopolymer	N/A	N/A	Not Listed	
Aromatic 100	N/A	N/A	Not Listed	
Isophorone Diisocyanate	N/A	500 lbs. TPQ	Not Listed	1.0 % de minimis concentration
1,2,4 - Trimethylbenzene	N/A	N/A	Not Listed	1.0 % de minimis concentration

US State Right to Know Regulations:

CHEMICAL NAME	RI Hazardous Substance List	MN	NJ	MA	PA
Methyl Amyl Ketone 110-43-0 (10 to 15)	Toxic	Present	Present	Present	Present
Isophorone Diisocyanate Homopolymer 53880-05-0 (10 to 15)	Not Present	Not Present	Not Present	Not Present	Not Present
Aromatic 100 64742-95-6 (5 to 10)	Not Present	Not Present	Not Present	Not Present	Not Present
Isophorone Diisocyanate 4098-71-9 (1 to 5)	Toxic	Skin	sn 1068	Extraordinarily hazardous	Environmental hazard
1,2,4 - Trimethylbenzene 95-63-6 (1 to 5)	Not Present	Present	sn 2716	Present	Environmental hazard

CA Prop 65

CHEMICAL NAME	CAS#	APPROX %
Cumene	98-82-8	< 0.01

Canada

CHEMICAL NAME	Canadian Domestic	Canadian Ingredient Disclosure List
Methyl Amyl Ketone 110-43-0 (10 to 15)	Listed	B3 COMBUSTIBLE LIQUIDS; D1A VERY TOXIC MATERIALS D2A VERY TOXIC MATERIALS; D2B TOXIC MATERIALS
Isophorone Diisocyanate Homopolymer 53880-05-0 (10 to 15)	Listed	B3 COMBUSTIBLE LIQUIDS; D1A VERY TOXIC MATERIALS D2A VERY TOXIC MATERIALS; D2B TOXIC MATERIALS
Aromatic 100 64742-95-6 (5 to 10)	Listed	B3 COMBUSTIBLE LIQUIDS; D1A VERY TOXIC MATERIALS D2A VERY TOXIC MATERIALS; D2B TOXIC MATERIALS
Isophorone Diisocyanate 4098-71-9 (1 to 5)	Listed	B3 COMBUSTIBLE LIQUIDS; D1A VERY TOXIC MATERIALS D2A VERY TOXIC MATERIALS; D2B TOXIC MATERIALS
1,2,4 - Trimethylbenzene 95-63-6 (1 to 5)	Listed	B3 COMBUSTIBLE LIQUIDS; D1A VERY TOXIC MATERIALS D2A VERY TOXIC MATERIALS; D2B TOXIC MATERIALS

SECTION 16 – OTHER INFORMATION (HMIS RATING)

Health	3
Flammability	2
Physical Hazard	1
Personal Protection	H

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