RAINBOW TECHNOLOGY CORPORATION

Specialists in Utility Chemicals & Safety Items

261 Cahaba Valley Parkway - Pelham, AL 35124-1146

Tel: 1.800.637.6047 / 205.733.0333

Fax: 1.800.521.6896 / 205.733.8930

www.rainbowtech.net

Woman-Owned Business Enterprise - Founded 1971

Safety Data Sheet (SDS)

1 Identification

Product Name: Plugging Compound - Part A - Polyol

Manufacturer: Rainbow Technology Corporation 1-800-637-6047

Contact: Larry Joe Steeley, Jr.

Emergency Phone No. (24 Hrs.): CHEM-TEL 1-800-255-3924 **SDS Issue Date:**......12/18/2023 **SDS Replaces Date:** 6/22/2016

2 Hazard(s) identification

· Classification of the substance or mixture The product does not meet the criteria for classification as hazardous under the GHS and 29 CFR 1910.1200

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- · NFPA ratings (scale 0 4)



· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description**: Mixture
- · Hazardous components: No hazardous/reportable components.

(Contd. of page 1)

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4 First-aid measures

- · Description of first aid measures
- · After inhalation: Overexposure, remove to fresh air and seek medical attention.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray.

Use fire fighting measures that suit the environment.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

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6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste in accordance with federal state and local regulations.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7 Handling and storage

- · Handling:
- · Precautions for safe handling

Open and handle receptacle with care.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location away from direct heat.
- · Information about storage in one common storage facility: Store away from oxidizing agents.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

(Contd. on page 3)

(Contd. of page 2)

Protect from humidity and water.

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment (see listings below)
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not necessary if room is well-ventilated.
- · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Material of gloves

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eve protection:

Safety glasses with side shields.



Tightly sealed goggles

· Body protection: Protective work clothing

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid
Color: Light yellow
Odor: Characteristic
Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point: Undetermined.

(Contd. on page 4)

	(Contd. of pag
Boiling.point: Flash point:	> 93 °C (> 199 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Flammable limits:	
Lower:	Not Determined
Upper:	Not Determined
Vapor pressure:	Not determined.
Specific gravity at 20 °C (68 °F):	$0.98 \text{ g/cm}^3 (8.178 \text{ lbs/gal})$
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water	e r): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	0.0 %
Solids content:	not available
Other information	No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid Moisture
- · Incompatible materials: Reacts with strong oxidizing agents.
- · Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: May irritate the skin.
- · on the eye: May irritate the eye.
- · Sensitization: No sensitizing effects known.

(Contd. on page 5)

(Contd. of page 4)

· Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: At present there are no ecotoxicological assessments.
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Must be specially treated adhering to official regulations.
- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information

- · UN-Number
- · DOT, ADR, ADN, IMDG, IATA not regulated
- · UN proper shipping name
- · DOT, ADR, ADN, IMDG, IATA not regulated
- · Transport hazard class(es)
- \cdot DOT, ADR, ADN, IMDG, IATA
- · Class not regulated

(Contd. on page 6)

(Contd. of page 5)

		(contain of page 5)
· Packing group · DOT, ADR, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
· Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity:

None of the ingredients is listed.

· (DSL) Canada Dosmestic Substance List

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

- · Cancerogenity categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · National regulations:
- · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it (Contd. on page 7)

(Contd. of page 6)

will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

· Department issuing SDS: Environment protection department.



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Safety Data Sheet (SDS)

1 Identification

Product Name: Plugging Compound - Part B - Isocyanate

Manufacturer: Rainbow Technology Corporation 1-800-637-6047

Contact: Larry Joe Steeley, Jr.

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS07

GHS08

- · Signal word Danger
- · Hazard statements

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

(Contd. on page 2)

(Contd. of page 1)

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Suspected of causing cancer.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

[In case of inadequate ventilation] wear respiratory protection.

Wear protective gloves.

Wear eye protection / face protection.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store locked up.

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

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2Reactivity = 1

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description:** Polyurethane

(Contd. on page 3)

(Contd. of page 2)• Hazardous components:101-68-84,4'-methylenediphenyl diisocyanate25-50%9016-87-9diphenylmethanediisocyanate,isomeres and homologues25-50%5873-54-1o-(p-isocyanatobenzyl)phenyl isocyanate2.5-10%

4 First-aid measures

- · Description of first aid measures
- · After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray.

Use fire fighting measures that suit the environment.

· Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon Dioxide (CO2).

- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Use neutralizing agent.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste in accordance with federal state and local regulations.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7 Handling and storage

- · Handling:
- · Precautions for safe handling

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Product reacts with water. Reaction may produce heat and/or gases.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Protect from moisture. Keep packages dry.
- · Information about storage in one common storage facility: Store away from water.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

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8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

101-68-8 4,4'-methylenediphenyl diisocyanate

PEL Ceiling limit value: 0.2 mg/m³, 0.02 ppm

REL Long-term value: 0.05 mg/m³, 0.005 ppm Ceiling limit value: 0.2* mg/m³, 0.02* ppm

*10-min

TLV Long-term value: 0.051 mg/m^3 , 0.005 ppm

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment (see listings below)
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Material of gloves

Butyl rubber, BR

Chloroprene rubber, CR

(Contd. on page 5)

(Contd. of page 4)

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Safety glasses with side shields.



Tightly sealed goggles

· Body protection:

Apron

Protective work clothing

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-					-	•	-			

· Partition coefficient (n-octanol/water): Not determined.

· Information on basic physical and chemical properties · General Information				
· General Information · Appearance:				
Form:	Liquid			
Color:	Amber			
· Odor:	Musty			
· Odor threshold:	Not determined.			
· pH-value:	Not determined.			
· Change in condition				
Melting point:	Undetermined.			
Boiling point: Flash point:	> 203 °C (> 397 °F)			
· Flammability (solid, gaseous):	Not applicable.			
· Ignition temperature:	400 °C (752 °F)			
· Decomposition temperature:	Not determined.			
· Auto igniting:	Product is not selfigniting.			
· Danger of explosion:	Product does not present an explosion hazard.			
· Flammable limits: Lower:	0.4 Vol %			
· Vapor pressure:	Not determined.			
· Specific gravity at 20 °C (68 °F):	1.18 g/cm³ (9.847 lbs/gal)			
· Relative density	Not determined.			
Vapor density	Not determined.			
· Evaporation rate	Not determined.			
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.			

(Contd. on page 6)

(Contd. of page 5)

Viscosity:

 Dynamic:
 Kinematic:
 Not determined.
 Not determined.

· Solvent content:

Organic solvents: 0.0 %

• Other information No further relevant information available.

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

Contact with moisture, other materials that react with isocyanates, or temperatures above 350F (177C), may cause polymerization.

· Possibility of hazardous reactions

Violent reaction with water at high temperatures.

May produce violent reactions with bases and numerous organic substances including alcohols and amines.

- · Conditions to avoid Moisture
- · Incompatible materials:

Reacts with amines.

Reacts with alcohols.

Reacts with water.

Reacts with alkali (lyes).

copper and copper alloys.

May produce violent reactions with bases and numerous organic substances including alcohols and amines.

· Hazardous decomposition products:

Nitrogen oxides

Carbon monoxide

Carbon dioxide

Isocyanate

Isocyanic acid

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

101-68-8 4,4'-methylenediphenyl diisocyanate

Oral LD50 2200 mg/kg (mouse)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization:

Inhalation - Sensitization possible through inhalation.

Skin Contact - Sensitization possible through skin contact.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

(Contd. on page 7)

(Contd. of page 6)

· Carcinogenic categories				
· IARC (International Agency for Research on Cancer)				
101-68-8 4,4'-methylenediphenyl diisocyanate	3			
9016-87-9 diphenylmethanediisocyanate,isomeres and homologues	3			
· NTP (National Toxicology Program)				
None of the ingredients is listed.				
· OSHA-Ca (Occupational Safety & Health Administration)				
None of the ingredients is listed.				

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: At present there are no ecotoxicological assessments.
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- **Recommendation:** Must be specially treated adhering to official regulations.
- · Uncleaned packagings:
- Recommendation: Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

UN-Number		
DOT, ADR, ADN, IMDG, IATA	not regulated	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	not regulated	
· Transport hazard class(es)	U	
DOT, ADR, ADN, IMDG, IATA		
Class	not regulated	
Packing group		
DOT, ADR, IMDG, IATA	not regulated	
Environmental hazards:	Not applicable.	

(Contd. on page 8)

· Special precautions for user Not applicable.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": not regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

101-68-8 4,4'-methylenediphenyl diisocyanate

9016-87-9 diphenylmethanediisocyanate,isomeres and homologues

· TSCA (Toxic Substances Control Act):

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity:

None of the ingredients is listed.

· (DSL) Canada Dosmestic Substance List

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

· Cancerogenity categories

	· EPA (Environmental Protection Agency)			
ſ	101-68-8	4,4'-methylenediphenyl diisocyanate	D, CBD	
ĺ	9016-87-9	diphenylmethanediisocyanate,isomeres and homologues	CBD	
т		1 1121 1 221 1 1 1 1 1 2 2 2 2 2 2 2 2		

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients listed.

· MAK (German Maximum Workplace Concentration)

101-68-84,4'-methylenediphenyl diisocyanate49016-87-9diphenylmethanediisocyanate,isomeres and homologues4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · National regulations:
- · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it (Contd. on page 9)

(Contd. of page 8)

will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

· Department issuing SDS: Environment protection department.