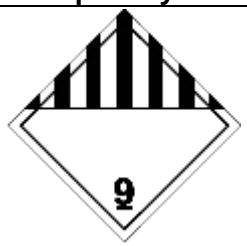
Material Safety Data Sheet

since 1895

NFPA	WHMIS	PPE	Transport Symbol
			

Preparation Date No data available **Revision Date** 16-Apr-2007 **Revision Number** 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Black-Knight™ CTP
Product Code 8344
UN-No UN3077
Contact Manufacturer

The Garland Company, Inc.
3800 East 91st. Street
Cleveland, Ohio 44105-2197
Ph: (800) 762-8225 Fax: (216) 641-0633

Garland Canda, Inc.
1296 Martin Grove Rd.
Toronto, Ontario M9W 4X3
Ph: (416)747-7995 Fax: (416)747-1980

Emergency Telephone Number 1-800-762-8225 (24 Hrs.)

2. HAZARDS IDENTIFICATION

Emergency Overview

Harmful by inhalation, in contact with skin and if swallowed
Harmful in contact with skin
Harmful if swallowed
Harmful by inhalation
Irritating to respiratory system
Irritating to skin
May be harmful if swallowed
May cause irritation of respiratory tract

Appearance Black. **Physical State** Solid. Liquid. **Odor** Aromatic.

OSHA Regulatory Status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Mexico - Grade Serious risk, Grade 3

Potential Health Effects

Principle Routes of Exposure Skin contact, Inhalation, Ingestion.

Acute Effects

Eyes Avoid contact with eyes. Irritating to eyes.

Skin Avoid contact with skin. Irritating to skin. May cause sensitization by skin contact.

Inhalation Avoid breathing vapors or mists. Irritating to mucous membranes. Inhalation of vapours in high concentration may cause irritation of respiratory system.

Ingestion May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Chronic Effects Prolonged exposure may cause chronic effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Skin disorders. Central nervous system.

Interactions with Other Chemicals Not available

Potential Environmental Effects See Section 12 for additional Ecological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
High Temperature Coal Tar Pitch	65996-93-2	60 - 100	1
Fluoranthene	206-44-0	1 - 5	1
Phenanthrene	85-01-8	1 - 5	1
Pyrene	129-00-0	1 - 5	1
1,2-Benzanthracene	56-55-3	1 - 5	1
1,2-Benzphenanthrene	218-01-9	1 - 5	1
Benzo(a)pyrene	50-32-8	1 - 5	1
Benzo(G,H,I)Perylene	191-24-2	1 - 5	1
Indeno(1,2,3-CD)Pyrene	193-39-5	0.1 - 1	1
Benzo(B)fluoranthene	205-99-2	0.1 - 1	1
Dibenzo(A,H)pyrene	189-64-0	0.1 - 1	1
Benzo(J)fluoranthene	205-82-3	0.1 - 1	1
Benzo(K)fluoranthene	207-08-9	0.1 - 1	1
Dibenzo(A,E)pyrene	192-65-4	0.1 - 1	1
Dibenzo(A,I)pyrene	189-55-9	0.1 - 1	1
Dibenz(A,H)anthracene	53-70-3	0.1 - 1	1
Naphthalene	91-20-3	0.1 - 1	1
5-Methylchrysene	3697-24-3	0.1 - 1	1

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Remove and wash contaminated clothing before re-use.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician immediately.

Ingestion Never give anything by mouth to an unconscious person. Drink 1 or 2 glasses of water. Do not induce vomiting. Call a physician or Poison Control Centre immediately.

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Carbon dioxide (CO2). Foam. Dry powder. Dry chemical.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Hazardous Combustion Products Carbon monoxide, Carbon dioxide (CO2), Hydrocarbons.

Explosion Data

Sensitivity to mechanical impact No
Sensitivity to static discharge Yes

Specific Hazards Arising from the Chemical
Combustible material. Thermal decomposition can lead to release of irritating gases and vapours.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health** 3 **Flammability** 1 **Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Ensure adequate ventilation.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Keep out of waterways.

Methods for Containment Dam up

Methods for Cleaning Up Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Keep in suitable and closed containers for disposal.

Other Information Not applicable

7. HANDLING AND STORAGE

Handling Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Ensure adequate ventilation.

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep at temperatures below 100°C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
High Temperature Coal Tar Pitch	TWA: 0.2 mg/m^3	TWA: 0.2 mg/m^3	TWA: 0.2 mg/m^3	STEL: 0.03 mg/m^3 STEL: 0.015 ppm TWA: 0.02 mg/m^3 TWA: 0.002 mg/m^3
Naphthalene	TWA: 10 ppm STEL: 15 ppm Skin	TWA: 50 mg/m^3 TWA: 10 ppm	STEL: 78 mg/m^3 STEL: 15 ppm TWA: 10 ppm TWA: 52 mg/m^3	STEL: 75 mg/m^3 STEL: 15 ppm TWA: 50 mg/m^3 TWA: 10 ppm

Chemical Name	NIOSH IDLH
High Temperature Coal Tar Pitch	80 mg/m^3
Naphthalene	250 ppm

Engineering Measures Ensure adequate ventilation, especially in confined areas. Do not allow ventilation equipment to draw material odors indoors..

Personal Protective Equipment

Eye/face Protection Tightly fitting safety goggles.

Skin Protection Long sleeved clothing. Boots. Lightweight protective clothing.

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures

When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Black
Odor Aromatic
Physical State Solid Liquid
pH Not available
Flash Point > 374°F / > 190°C
Method Tag closed cup
Autoignition Temperature 750°F / 399°C
Boiling Point/Range >464°F / 240°C
Freezing Point Not available
Flammability Limits in Air **Lower** Not available **Upper** Not available
Explosive Properties Not available
Oxidizing Properties Not available
Evaporation Rate 0.37 for solvent (ether = 1)
Vapor Pressure <1 mmHg @ 68 °F
Vapor Density <1 @ Air = 1
Specific Gravity 1.3
Solubility Slightly soluble

9. PHYSICAL AND CHEMICAL PROPERTIES

Water Solubility slightly soluble
Volatiles Not available
VOC Content 0 g/l

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.

Conditions to Avoid Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials Strong oxidizing agents.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2). Hydrocarbons.

Possibility of Hazardous Reactions Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Fluoranthene	2 g/kg Rat	3180 mg/kg Rabbit	
Phenanthrene	700 mg/kg Mouse		
Pyrene	2700 mg/kg Rat		
Naphthalene	490 mg/kg Rat	2500 mg/kg Rat 20 g/kg Rabbit	340 mg/m^3 Rat 1 h

Chronic Toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
High Temperature Coal Tar Pitch	A1	Group 1	Known	X	A1

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
1,2-Benzanthracene	A2	Group 2A	Reasonably Anticipated	X	
1,2-Benzphenanthrene	A3				
Benzo(a)pyrene	A2	Group 2A	Reasonably Anticipated	X	
Indeno(1,2,3-CD)Pyrene		Group 2B	Reasonably Anticipated	X	
Benzo(B)fluoranthene	A2	Group 2B	Reasonably Anticipated	X	
Dibenzo(A,H)pyrene		Group 2B	Reasonably Anticipated	X	
Benzo(J)fluoranthene		Group 2B	Reasonably Anticipated	X	
Benzo(K)fluoranthene		Group 2B	Reasonably Anticipated	X	
Dibenzo(A,E)pyrene		Group 2B	Reasonably Anticipated	X	
Dibenzo(A,I)pyrene		Group 2B	Reasonably Anticipated	X	
Dibenz(A,H)anthracene		Group 2A	Reasonably Anticipated	X	
Naphthalene		Group 2B	Reasonably Anticipated	X	
5-Methylchrysene		Group 2B	Reasonably Anticipated	X	

12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Pyrene

Water Flea Data
water flea EC50=1.8 mg/L (48 h)

1,2-Benzanthracene

Microtox Data
Photobacterium phosphoreum EC50=0.26 mg/L (15 min)
Water Flea Data
water flea EC50=0.01 mg/L (96 h)

1,2-Benzphenanthrene

Water Flea Data
water flea EC50=1.9 mg/L (2 h)

Naphthalene

Freshwater Algae Data
Skeletonema costatum EC50=0.4 mg/L (96 h)
Microtox Data
Photobacterium phosphoreum EC50=0.93 mg/L (30 min)
Pseudomonas putida EC50>20 mg/L (18 h)
Water Flea Data
water flea EC50=2.16 mg/L (48 h)

Persistence/Degradability	Not available
Bioaccumulation/ Accumulation	Not available
Mobility in Environmental Media	Not available

High Temperature Coal Tar Pitch
log Pow = 6.04

Fluoranthene
log Pow = 5.33

Phenanthrene
log Pow = 4.46

Pyrene
log Pow = 4.88

1,2-Benzanthracene
log Pow = 5.61

1,2-Benzphenanthrene
log Pow = 5.61 - 5.91

Benzo(a)pyrene
log Pow = 6.06

Benzo(G,H,I)Perylene
log Pow = 7.23

Indeno(1,2,3-CD)Pyrene
log Pow = 6.584

Benzo(B)fluoranthene
log Pow = 6.57

Benzo(K)fluoranthene
log Pow = 6.84

Dibenz(A,H)anthracene
log Pow = 6.50

Naphthalene
log Pow = 3.3

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations.

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal.

US EPA Waste Number D001

Chemical Name	RCRA
Fluoranthene - 206-44-0	waste number U120

Chemical Name	RCRA
1,2-Benzanthracene - 56-55-3	waste number U018
1,2-Benzphenanthrene - 218-01-9	waste number U050
Benzo(a)pyrene - 50-32-8	waste number U022
Indeno(1,2,3-CD)Pyrene - 193-39-5	waste number U137
Benzo(B)fluoranthene - 205-99-2	(hazardous constituent - no waste number)
Dibenzo(A,H)pyrene - 189-64-0	(hazardous constituent - no waste number)
Benzo(J)fluoranthene - 205-82-3	(hazardous constituent - no waste number)
Benzo(K)fluoranthene - 207-08-9	(hazardous constituent - no waste number)
Dibenzo(A,E)pyrene - 192-65-4	(hazardous constituent - no waste number)
Dibenzo(A,I)pyrene - 189-55-9	waste number U064
Dibenz(A,H)anthracene - 53-70-3	waste number U063
Naphthalene - 91-20-3	waste number U165

14. TRANSPORT INFORMATION

DOT Not Regulated

Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s
Hazard Class	9
Subsidiary Class	
UN-No	UN3077
Packing Group	III
Reportable Quantity (RQ)	Dibenz[a,i]pyrene, RQ kg = 1816 Indeno1,2,3-cdpyrene, RQ kg = 4585.858 Fluoranthene, RQ kg = 1297.143 Chrysene, RQ kg = 3242.857 Benz[a]anthracene, RQ kg = 324.2857 Acenaphthene, RQ kg = 9659.574 Naphthalene, RQ kg = 18916.67
Description	Environmentally hazardous substances, solid, n.o.s.(Dibenz[a,i]pyrene,Indeno(1,2,3-cd)pyrene,Fluoranthene,Chrysene,Benz[a]anthracene,Acenaphthene,Naphthalene),9,UN3077,PG III,RQ

TDG Not regulated

Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s
Hazard Class	9
Subsidiary Class	
UN-No	UN3077
Packing Group	III
Description	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., Class 9,UN3077,PG III

MEX Not regulated

Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s
Hazard Class	9
Subsidiary Class	
UN-No	UN3077
Packing Group	III
Description	UN3077 Environmentally hazardous substance, solid, n.o.s.,9,III

ICAO Not regulated

UN-No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s
Hazard Class	9
Subsidiary Class	
Packing Group	III

14. TRANSPORT INFORMATION

Description Environmentally hazardous substance, solid, n.o.s.*,UN3077,PG III

IATA Not regulated

UN-No UN3077
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s
Hazard Class 9
Subsidiary Class
Packing Group III
ERG Code 9L
Description Environmentally hazardous substance, solid, n.o.s.*,UN3077,PG III

IMDG/IMO Not regulated

Proper Shipping Name Environmentally hazardous substance, solid, n.o.s
Hazard Class 9
Subsidiary Class
UN-No UN3077
Packing Group III
EmS No. F-A, S-F
Description Environmentally hazardous substance, solid, n.o.s.,UN3077,PG III

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS
High Temperature Coal Tar Pitch	X	X	-	X	-	X	X	X	X	X
Fluoranthene	X	-	X	X	-	X	X	-	-	X
Phenanthrene	X	X	-	X	-	X	X	X	X	X
Pyrene	X	X	-	X	-	X	X	-	X	X
1,2-Benzanthracene	X	-	X	X	-	-	X	-	-	-
1,2-Benzphenanthrene	X	X	-	X	-	-	-	X	-	X
Benzo(a)pyrene	X	X	-	X	-	-	X	X	X	-
Benzo(G,H,I)Perylene	-	-	-	X	-	-	-	-	-	-
Indeno(1,2,3-CD)Pyrene	X	-	X	X	-	-	-	-	-	-
Benzo(B)fluoranthene	-	-	-	X	-	-	-	-	-	-
Dibenzo(A,H)pyrene	-	-	-	X	-	-	-	-	-	-
Benzo(J)fluoranthene	-	-	-	X	-	-	-	-	-	-
Benzo(K)fluoranthene	-	-	-	X	-	-	-	-	-	-
Dibenzo(A,E)pyrene	-	-	-	X	-	-	-	-	-	-
Dibenzo(A,I)pyrene	-	-	-	X	-	-	-	-	-	-
Dibenz(A,H)anthracene	X	-	X	X	-	-	X	-	-	-
Naphthalene	X	X	-	X	-	X	X	X	X	X
5-Methylchrysene	-	-	-	-	-	-	-	-	-	-

TSCA Does not Comply
DSL Does not Comply
NDSL Does not Comply
EINECS Does not Comply
ELINCS Does not Comply
ENCS Does not Comply
CHINA Does not Comply
KECL Does not Comply

PICCS Does not Comply
AICS Does not Comply

USA

Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

Chemical Name	SARA 313 - Threshold Values
Fluoranthene (CAS #: 206-44-0)	1.0%
Phenanthrene (CAS #: 85-01-8)	1.0%
1,2-Benzanthracene (CAS #: 56-55-3)	0.1%
1,2-Benzphenanthrene (CAS #: 218-01-9)	0.1%
Benzo(a)pyrene (CAS #: 50-32-8)	0.1%
Benzo(G,H,I)Perylene (CAS #: 191-24-2)	1.0%
Indeno(1,2,3-CD)Pyrene (CAS #: 193-39-5)	0.1%
Benzo(B)fluoranthene (CAS #: 205-99-2)	0.1%
Dibenzo(A,H)pyrene (CAS #: 189-64-0)	0.1%
Benzo(J)fluoranthene (CAS #: 205-82-3)	0.1%
Benzo(K)fluoranthene (CAS #: 207-08-9)	0.1%
Dibenzo(A,E)pyrene (CAS #: 192-65-4)	0.1%
Dibenzo(A,I)pyrene (CAS #: 189-55-9)	0.1%
Dibenz(A,H)anthracene (CAS #: 53-70-3)	0.1%
Naphthalene (CAS #: 91-20-3)	0.1%
5-Methylchrysene (CAS #: 3697-24-3)	0.1%

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any HAPs.

Chemical Name
Naphthalene (CAS #: 91-20-3)

State Regulations

California Proposition 65
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

Chemical Name	CAS-No	Category	Type
1,2-Benzanthracene	56-55-3	Carcinogen	
1,2-Benzphenanthrene	218-01-9	Carcinogen	
Benzo(a)pyrene	50-32-8	Carcinogen	
Indeno(1,2,3-CD)Pyrene	193-39-5	Carcinogen	
Benzo(B)fluoranthene	205-99-2	Carcinogen	
Dibenzo(A,H)pyrene	189-64-0	Carcinogen	
Benzo(J)fluoranthene	205-82-3	Carcinogen	
Benzo(K)fluoranthene	207-08-9	Carcinogen	
Dibenzo(A,E)pyrene	192-65-4	Carcinogen	
Dibenzo(A,I)pyrene	189-55-9	Carcinogen	
Dibenz(A,H)anthracene	53-70-3	Carcinogen	
Naphthalene	91-20-3	Carcinogen	

Chemical Name	CAS-No	Category	Type
5-Methylchrysene	3697-24-3	Carcinogen	

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
High Temperature Coal Tar Pitch	X	X	X	X	
Fluoranthene	X	X	X		
Phenanthrene	X	X	X		
Pyrene	X	X	X	X	
1,2-Benzanthracene	X	X	X	X	X
1,2-Benzphenanthrene	X	X	X	X	X
Benzo(a)pyrene	X	X	X	X	X
Benzo(G,H,I)Perylene	X	X	X	X	
Indeno(1,2,3-CD)Pyrene	X	X	X	X	
Benzo(B)fluoranthene	X	X	X	X	X
Dibenzo(A,H)pyrene	X	X	X	X	X
Benzo(J)fluoranthene	X	X	X	X	X
Benzo(K)fluoranthene	X	X	X	X	
Dibenzo(A,E)pyrene	X	X	X	X	X
Dibenzo(A,I)pyrene	X	X	X	X	X
Dibenz(A,H)anthracene	X	X	X	X	X
Naphthalene	X	X	X	X	X
5-Methylchrysene	X		X	X	

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
D2A Very toxic materials

16. OTHER INFORMATION

Revision Date 16-Apr-2007

Revision Summary Not available

Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS