

# ASHLAND®

## SAFETY DATA SHEET

Page: 1

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 00000035712

Version: 2.1

Praestol™ K 290 FLX FLOCCULANT  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries658438

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)
Product name	Praestol™ K 290 FLX FLOCCULANT	
	™ Trademark, Ashland or its subsidiaries, registered in various countries	
Product code	658438	
Product Use Description	Industrial chemical	

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance: liquid, viscous, white

WARNING! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CAUSES EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE DERMATITIS AND BURNS. MAY BE HARMFUL IF SWALLOWED.

#### Potential Health Effects

##### **Exposure routes**

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

##### **Eye contact**

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

##### **Skin contact**

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.

##### **Ingestion**

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

##### **Inhalation**

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

# ASHLAND<sup>®</sup>

## SAFETY DATA SHEET

Page: 2

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 000000035712

Version: 2.1

Praestol<sup>™</sup> K 290 FLX FLOCCULANT

<sup>™</sup> Trademark, Ashland or its subsidiaries, registered in various countries658438

### Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions)

### Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Lung irritation, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), Lack of coordination, confusion, irregular heartbeat, narcosis (dazed or sluggish feeling), lung damage, Convulsions, coma

### Target Organs

Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects

### Carcinogenicity

This material is not listed as carcinogenic by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). This product (or a component) is a petroleum-derived material. Similar materials and certain compounds occurring naturally in petroleum oils have been shown to cause skin cancer in laboratory animals following repeated exposure without washing or removal. Good industrial hygiene practices are recommended to minimize exposure.

### Reproductive hazard

Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
ALIPHATIC HYDROCARBON	254504001-5164	>=20-<30%
ALCOHOL ALKOXYLATES	254504001-5466	>=1.5-<5%

## 4. FIRST AID MEASURES

### Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

### Skin

# ASHLAND®

## SAFETY DATA SHEET

Page: 3

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 000000035712

Version: 2.1

Praestol™ K 290 FLX FLOCCULANT

™ Trademark, Ashland or its subsidiaries, registered  
in various countries 658438

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

### Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

### Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

### Notes to physician

**Hazards:** Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.

**Treatment:** No information available.

## 5. FIREFIGHTING MEASURES

### Suitable extinguishing media

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

### Hazardous combustion products

carbon dioxide and carbon monoxide, Hydrocarbons, nitrogen oxides (NO<sub>x</sub>), toxic fumes

### Precautions for fire-fighting

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

### NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Material can create slippery conditions.

### Environmental precautions

# ASHLAND®

## SAFETY DATA SHEET

Page: 4

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 000000035712

Version: 2.1

### Praestol™ K 290 FLX FLOCCULANT

™ Trademark, Ashland or its subsidiaries, registered in various countries658438

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

#### Methods for cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). The area should be thoroughly flushed with water and scrubbed to remove residue. If slipperiness remains, apply more dry-sweeping compound.

#### Other information

Comply with all applicable federal, state, and local regulations.

## 7. HANDLING AND STORAGE

#### Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. This material is slippery when wet.

#### Storage

Store in a cool, dry, ventilated area. Keep from freezing.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Exposure Guidelines

ALIPHATIC HYDROCARBON		254504001-5164	
ACGIH	time weighted average	200 mg/m3	Non-aerosol
NIOSH	Recommended exposure limit (REL):	100 mg/m3	

#### General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

#### Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

#### Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist. Maintain eye wash station near work area.

#### Skin and body protection

# ASHLAND®

## SAFETY DATA SHEET

Page: 5

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 000000035712

Version: 2.1

Praestol™ K 290 FLX FLOCCULANT

™ Trademark, Ashland or its subsidiaries, registered  
in various countries658438

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

Discard gloves that show tears, pinholes, or signs of wear.

### Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	liquid
<b>Form</b>	viscous
<b>Colour</b>	white
<b>Odour</b>	hydrocarbon-like
<b>Flash point</b>	> 214 °F / > 101 °C
<b>Lower explosion limit/Upper explosion limit</b>	0.6 %(V) / 7 %(V) Calculated Explosive Limit
<b>Vapour pressure</b>	19.300 hPa @ 68 °F / 20 °C
<b>Density</b>	(Approximate) 1.03 g/cm <sup>3</sup>
<b>Water solubility</b>	soluble

## 10. STABILITY AND REACTIVITY

### Stability

Stable.

### Conditions to avoid

Heat, flames and sparks.

### Incompatible products

aluminum, Copper, Copper alloys, Strong acids, Strong bases, Strong oxidizing agents, strong reducing agents

### Hazardous decomposition products

carbon dioxide and carbon monoxide, Hydrocarbons, nitrogen oxides (NO<sub>x</sub>)

### Hazardous reactions

Product will not undergo hazardous polymerization.

Praestol™ K 290 FLX FLOCCULANT  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries658438

### 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation  
Skin absorption  
Skin contact  
Eye Contact  
Ingestion

#### Product

Acute oral toxicity : no data available

Acute inhalation toxicity : no data available

Acute dermal toxicity : no data available

Skin corrosion/irritation : no data available

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitisation : no data available

Target Organ Systemic Toxicant - Repeated Exposure : Target Organs: Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans., Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, mild, reversible liver effects

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

#### Components:

##### **ALIPHATIC HYDROCARBON:**

Acute oral toxicity : LD 50 Rat: > 8,000 mg/kg

Acute inhalation toxicity : LC 50 Rat: > 2500 ppm  
Exposure time: 4 h

# ASHLAND®

## SAFETY DATA SHEET

Page: 7

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 000000035712

Version: 2.1

Praesto™ K 290 FLX FLOCCULANT  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries658438

Acute dermal toxicity : LD 50 Rabbit: > 4,000 mg/kg

### ALCOHOL ALKOXYLATES:

Acute oral toxicity : LD 50 Rat: 1,380 mg/kg

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish : LC 50 (Pimephales promelas (fathead minnow)): 26.5 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Test conducted using environmentally representative water.

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Ceriodaphnia dubia)): 5.66 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Test conducted using environmentally representative water.

#### Components:

no data available

### Persistence and degradability

#### Product:

no data available

#### Components:

### ALCOHOL ALKOXYLATES:

Biodegradability : Readily biodegradable

### Bioaccumulative potential

#### Product:

no data available

#### Components:

# ASHLAND®

## SAFETY DATA SHEET

Page: 8

Revision Date: 08/22/2013  
Print Date: 4/4/2014  
MSDS Number: 000000035712  
Version: 2.1

Praestol™ K 290 FLX FLOCCULANT  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries658438

no data available

### Mobility in soil

#### Product:

no data available

#### Components:

no data available

### 13. DISPOSAL CONSIDERATIONS

#### Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations.

### 14. TRANSPORT INFORMATION

#### REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
-----------	----------------------	---------------	--------------------	---------------	------------------------------

#### U.S. DOT - ROAD

Not dangerous goods

#### U.S. DOT - RAIL

Not dangerous goods

#### U.S. DOT - INLAND WATERWAYS

Not dangerous goods

#### TRANSPORT CANADA - ROAD

Not dangerous goods

#### TRANSPORT CANADA - RAIL

Not dangerous goods

#### TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

#### INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

#### INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO



# ASHLAND®

## SAFETY DATA SHEET

Page: 9

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 000000035712

Version: 2.1

Praestol™ K 290 FLX FLOCCULANT  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries 658438

Not dangerous goods

### INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

### MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

## 15. REGULATORY INFORMATION

### California Prop. 65

Proposition 65 warnings are not required for this product based on the results of a risk assessment.

### SARA Hazard Classification

#### SARA 311/312 Classification

Fire Hazard

Acute Health Hazard

### SARA 313 Component(s)

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Notification status

US. Toxic Substances Control Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	q (quantity restricted)
Australia. Industrial Chemical (Notification and Assessment) Act	y (positive listing)
Japan. ENCS - Existing and New Chemical Substances Inventory	y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)
China. Inventory of Existing Chemical Substances	y (positive listing)

	HMIS	NFPA
Health	2	2
Flammability	1	1
Physical hazards	0	

# ASHLAND®

## SAFETY DATA SHEET

Page: 10

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 000000035712

Version: 2.1

Praestol™ K 290 FLX FLOCCULANT

™ Trademark, Ashland or its subsidiaries, registered in various countries658438

Instability		0
Specific Hazard	--	--

### 16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act

DOT : Department of Transportation

FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act

HMIRC : Hazardous Materials Information Review Commission

HMIS : Hazardous Materials Identification System

# **ASHLAND®**

## **SAFETY DATA SHEET**

Page: 11

Revision Date: 08/22/2013

Print Date: 4/4/2014

MSDS Number: 000000035712

Version: 2.1

Praestol™ K 290 FLX FLOCCULANT

™ Trademark, Ashland or its subsidiaries, registered  
in various countries658438

NFPA : National Fire Protection Association

NIOSH : National Institute for Occupational Safety and Health

OSHA : Occupational Safety and Health Administration

PMRA : Health Canada Pest Management Regulatory Agency

RTK : Right to Know

WHMIS : Workplace Hazardous Materials Information System