MATERIAL SAFETY DATA SHEET

Ashland Chemical Co.

Date Prepared: 01/26/98
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ACT 690 C 4X1G

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: ACT 690 C 4X1G
General or Generic ID: SOLVENT STRIPPER

Company
Ashland Chemical Co.
P.O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:
1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:
1-800-325-3751

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
MAJOR COMPONENT	Trade Secret	55.0- 85.0
MINOR COMPONENT	Trade Secret	10.0- 40.0
AROMATIC DIOL	120-80-9	1.0- 10.0

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3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause permanent eye injury. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness.

Skin

Can cause permanent skin damage. Symptoms may include redness, burning, and swelling of skin, burns, and other skin damage. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects), Passage of this material into the body through the skin is possible, and skin contact may be harmful. This material (or a component) enters the body rapidly through the skin and may carry other dissolved chemicals into the body as well. Exposure to this material may result in symptoms due to passage of other more harmful chemicals into the body, rather than to this material itself.

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Swallowing

Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea, vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury. 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 this material may be harmful or fatal. Symptoms may include severe irritation and burns to the nose, throat, and respiratory tract. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: garlic-like odor of the breath and sweat, chills stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), loss of appetite, visual disturbances, pain in the abdomen, chest pain shortness of breath, blood abnormalities (breakage of red blood cells), lung edema (fluid buildup in the lung tissue), kidney damage, liver damage.

Target Organ Effects

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals, and may aggravate pre-existing disorders of these organs in humans: mild, reversible liver effects, cataracts, kidney damage, liver damage.

Developmental Information

This material (or a component) caused harm to the fetus in a laboratory animal study in which high doses of the material were placed in the stomachs of the mothers through a feeding tube. However, in other studies it was not harmful to unborn rats or rabbits when the chemical was given to the mothers by skin contact. Contact with this material in the workplace at levels which are not harmful to the mother should have no effect on the unborn baby. This material (or a component) has caused birth

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defects in studies in which it was injected into the abdomen of the pregnant animal or directly into the fetus. These exposure routes do not apply to human exposure situations and are not considered relevant to human health. It was not toxic to the fetus in studies where it was given to the animals orally.

Cancer Information

Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects

In studies in animals in which it was given at very high doses by injection, this material (or a component) caused blood effects such as breakage of red blood cells. This was followed by the appearance of blood in the urine, kidney failure, and effects on the liver such as increased fat content. The relevance of these studies with respect to human workplace exposure is unknown.

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact.

4. FIRST AID MEASURES

Eyes

If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.

Skin

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and decontaminate or discard contaminated shoes.

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Swallowing
Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

Inhalation
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians
This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), liver, kidney, eye.

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5. FIRE FIGHTING MEASURES

Flash Point
201.0 F (93.8 C) TOC

Explosive Limit
(for component) Lower 5.5 %

Autoignition Temperature
No data

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, hydrogen sulfide, nitrogen oxides, sulfur dioxide.

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Fire and Explosion Hazards
Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media
water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions
Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating
Health - 3, Flammability - 1, Reactivity - 0

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6. ACCIDENTAL RELEASE MEASURES

Small Spill
Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood. Paper towels or cloths used to clean up small spills should be thoroughly soaked with water before discarding to avoid possible autoignition. Boxes or containers of this product that may become contaminated as a result of possible leakage should be similarly disposed of.

Large Spill
Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

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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. All five-gallon pails and larger metal containers, including tank cars and tank trucks, should be grounded and/or bonded when material is transferred.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin Protection

Wear resistant gloves (consult your safety equipment supplier).,
To prevent skin contact, wear impervious clothing and boots.,
Other protective equipment: eyewash station, emergency shower..

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

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Exposure Guidelines
Component

MAJOR COMPONENT
OSHA VPEL 8.000 mg/m3 - TWA
OSHA VPEL 15.000 mg/m3 - STEL
ACGIH TLV 7.500 mg/m3 - TWA
ACGIH TLV 15.000 mg/m3 - STEL

MINOR COMPONENT
No exposure limits established

AROMATIC DIOL (120-80-9)
OSHA VPEL 20.000 mg/m3 - TWA (Skin)
ACGIH TLV 23.000 mg/m3 - TWA (Skin)

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9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 338.7 F (170.3 C) @ 760 mmHg

Vapor Pressure
(for component) < 1.000 mmHg

Specific Vapor Density
2.100 @ AIR=1

Specific Gravity
1.040 @ 68.00 F

Liquid Density
8.660 lbs/gal @ 68.00 F
1.040 kg/l @ 20.00 C

Percent Volatiles
100.0 %

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Evaporation Rate
< 1.00 (BUTYL ACETATE)

Appearance
No data

State
LIQUID

Physical Form
HOMOGENEOUS SOLUTION

Color
LIGHT AMBER; SLIGHT AMINE ODOR

Odor
No data

pH
11.0

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10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.

Hazardous Decomposition
May form: carbon dioxide and carbon monoxide, hydrogen sulfide, nitrogen oxides, sulfur dioxide.

Chemical Stability
Stable.

Incompatibility
Avoid contact with: acetyl compounds, acrylates, brass, copper, halogenated hydrocarbons, ketones, organic anhydrides, phosphorus, strong acids, strong alkalies, strong oxidizing agents, sulfur compounds, thionyl compounds.

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11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

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

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101
DOT Description:
ETHANOLAMINE SOLUTIONS,8,UN2491,III

Container/Mode:
55 GAL DRUM/TRUCK PACKAGE

NOS Component:
None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs)	Component
1667	CATECHOL

15. REGULATORY INFORMATION

US Federal Regulations
TSCA (Toxic Substances Control Act) Status
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

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CERCLA RQ - 40 CFR 302.4(a)

Component	RQ (lbs)
CATECHOL	100

CERCLA RQ - 40 CFR 302.4(b)
Materials without a "listed" RQ may be reportable as an "unlisted hazardous substance". See 40 CFR 302.5 (b).

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	%
CATECHOL	120-80-9	6.00

International Regulations
Inventory Status
Not determined

State and Local Regulations
California Proposition 65
None

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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.

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