

ASHLAND	Page: 1
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Pliobond™ 35
ADHESIVE
™ Trademark, Ashland or its subsidiaries, registered in various countries

**PACKAGED AND MARKETED BY: THE RUSCOE COMPANY 485 KENMORE BLVD. AKRON OHIO 44301
PH:330-253-8148 TOLL FREE: 800-293-8148 FAX: 330-253-2933**

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet Ashland P.O. Box 2219 Columbus, OH 43216 United States of America EHS Customer Requests@ashland.com	Emergency telephone number 1-800-ASHLAND (1-800-274-5263) Regulatory Information Number 1-800-325-3751 Product Information 614-790-3333
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 2
Eye irritation : Category 2A
Skin sensitization : Category 1
Carcinogenicity : Category 1B
Specific target organ systemic toxicity - single exposure : Category 3 (Central nervous system)

GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Highly flammable liquid and vapor.
May cause an allergic skin reaction.

ASHLAND [®]	Page: 2
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause cancer.

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
Wash contaminated clothing before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

ASHLAND		Page: 3
SAFETY DATA SHEET		Revision Date: 05/26/2015
		Print Date: 6/2/2015
		SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510		

Chemical nature : Defatter

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
ACETONE	67-64-1	Flam. Liq. 2; H225 Eye Irrit. 2A; H319 STOT SE 3; H336	62.21
METHYL ETHYL KETONE	78-93-3	Flam. Liq. 2; H225 Eye Irrit. 2A; H319 STOT SE 3; H336	7.00
CALCIUM CARBONATE	471-34-1		3.80
BENZOTHIAZYL DISULFIDE	120-78-5	Skin Sens. 1; H317	0.12
FORMALDEHYDE	50-00-0	Flam. Liq. 4; H227 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Carc. 1B; H350	0.10

SECTION 4. FIRST AID MEASURES

ASHLAND		Page: 4
SAFETY DATA SHEET		Revision Date: 05/26/2015
		Print Date: 6/2/2015
		SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510		

- General advice : Move out of dangerous area.
Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Move to fresh air.
If unconscious place in recovery position and seek medical advice.
Consult a physician after significant exposure.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.
First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
Wash contaminated clothing before re-use.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
- If swallowed : Obtain medical attention.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion.
Ingestion of large amounts or other significant exposure to this material (or a component) may cause alkalosis.
Excessive calcium intake may cause gastrointestinal symptoms, hypertension, hypercalcemia, kidney stones, and may inhibit absorption of iron, zinc, and possibly other trace elements.
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)
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause cancer.
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

ASHLAND		Page: 5
SAFETY DATA SHEET		Revision Date: 05/26/2015
		Print Date: 6/2/2015
		SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510		

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide
Hydrogen cyanide (hydrocyanic acid)
nitrogen oxides (NOx)
calcium oxide
- Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Use a water spray to cool fully closed containers.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Remove all sources of ignition.
Use personal protective equipment.
Ensure adequate ventilation.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

ASHLAND	Page: 6
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Open drum carefully as content may be under pressure.
 Avoid formation of aerosol.
 Provide sufficient air exchange and/or exhaust in work rooms.
 Do not breathe vapours/dust.
 Do not smoke.
 Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
 Container hazardous when empty.
 Take precautionary measures against static discharges.
 Avoid exposure - obtain special instructions before use.
 Avoid contact with skin and eyes.
 Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.
 Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Observe label precautions.
 No smoking.
 Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ACETONE	67-64-1	TWA	500 ppm	ACGIH
		STEL	750 ppm	ACGIH
		REL	250 ppm	NIOSH/GUID

SAFETY DATA SHEET

Revision Date: 05/26/2015

Print Date: 6/2/2015

SDS Number: A-204

Pliobond™ 35 ADHESIVE
 ™ Trademark, Ashland or its subsidiaries, registered
 in various countries
 167510

			590 mg/m3	E
		PEL	1,000 ppm 2,400 mg/m3	OSHA_TRANS
		TWA	250 ppm	ACGIHLIS_P
		STEL	500 ppm	ACGIHLIS_P
		TWA	750 ppm 1,800 mg/m3	Z1A
		STEL	1,000 ppm 2,400 mg/m3	Z1A
METHYL ETHYL KETONE	78-93-3	TWA	200 ppm	ACGIH
		STEL	300 ppm	ACGIH
		REL	200 ppm 590 mg/m3	NIOSH/GUIDE
		STEL	300 ppm 885 mg/m3	NIOSH/GUIDE
		PEL	200 ppm 590 mg/m3	OSHA_TRANS
CALCIUM CARBONATE	471-34-1	PEL	5 mg/m3 Respirable fraction.	OSHA_TRANS
		PEL	15 mg/m3 Total dust.	OSHA_TRANS
		REL	5 mg/m3 Respirable.	NIOSH/GUIDE
		REL	10 mg/m3 Total	NIOSH/GUIDE
FORMALDEHYDE	50-00-0	Ceiling	0.3 ppm	ACGIH
		REL	0.016 ppm	NIOSH/GUIDE
		Ceil_Time	0.1 ppm	NIOSH/GUIDE
		TWA	0.75 ppm	OSHASP
		STEL	2 ppm	OSHASP
		OSHA_ACT	0.5 ppm	OSHASP
		Ceiling	0.3 ppm	ACGIHLIS_P

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
ACETONE	67-64-1	acetone	Urine	Sampling time: End of shift.	50 mg/l	
Remarks:	Nonspecific					
METHYL ETHYL KETONE	78-93-3	methylEthyl Ketone	Urine	Sampling time: End of shift.	2 mg/l	ACGIH BEI
Remarks:	Nonspecific					

Engineering measures : Provide sufficient mechanical (general and/or local exhaust)

ASHLAND		Page: 8
SAFETY DATA SHEET		Revision Date: 05/26/2015
		Print Date: 6/2/2015
		SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510		

ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
- 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.
- Hand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.
- Skin and body protection : Wear as appropriate:
impervious clothing
Safety shoes
Flame-resistant clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place. Discard gloves that show tears, pinholes, or signs of wear. Wear resistant gloves (consult your safety equipment supplier).
- Hygiene measures : Wash hands before breaks and at the end of workday.
When using do not eat or drink.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : liquid
- Colour : tan
- Odour : No data available
- Odour Threshold : No data available

ASHLAND		Page: 9
SAFETY DATA SHEET		Revision Date: 05/26/2015
		Print Date: 6/2/2015
		SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510		

pH : No data available

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : < 19 °F / < -7 °C
Method: Seta closed cup

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : < 1AIR=1

Relative density : 0.89 (77.00 °F)

Density : 0.89 g/cm3 (77.00 °F)

Solubility(ies)
Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Thermal decomposition : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous : Vapours may form explosive mixture with air.

	Page: 10
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

reactions Formaldehyde reacts with peroxides, phenol, strong acids, amines and strong oxidizing agents. Formaldehyde reacts violently with nitrogen dioxide, nitromethane, perchloric acid, perchloric acid-aniline mixtures, or peroxyformic acid to yield explosive compounds. It reacts with hydrochloric acid or to organic chlorides to form the carcinogen, bis(chloromethyl)ether.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Acids alkalis
 ammonium salts
 aluminum salts
 Amines
 Ammonia
 Copper
 Copper alloys
 halogens
 peroxides
 Reducing agents
 strong alkalis
 Strong oxidizing agents

Hazardous decomposition products calcium oxide
 carbon dioxide and carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

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

Acute toxicity

Not classified based on available information.

Components:

ACETONE:

Acute oral toxicity : LD 50 (Rat, female): 5,800 mg/kg

Acute inhalation toxicity : LC 50 (Rat, female): 76 mg/l
 Exposure time: 4 h

Acute dermal toxicity : LD 50 (Rabbit): > 7,426 mg/kg

METHYL ETHYL KETONE:

Acute oral toxicity : LD 50 (Rat): 2,300 - 3,500 mg/kg

Acute dermal toxicity : LD 50 (Rabbit): > 5 g/kg

ASHLAND [®]	Page: 11
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

CALCIUM CARBONATE:

Acute oral toxicity : LD 50 (Rat): 6,450 mg/kg

Acute inhalation toxicity : LC 50 (Rat): > 3 mg/l
 Exposure time: 4 h
 Method: OECD Test Guideline 403
 Assessment: Not classified as acutely toxic by inhalation under GHS.
 Remarks: Aerosol

Acute dermal toxicity : LD 50 (Rat): > 2,000 mg/kg
 Method: OECD Test Guideline 402

BENZOTHIAZYL DISULFIDE:

Acute oral toxicity : LD 50 (Rat): > 12 g/kg

Acute dermal toxicity : LD 50 (Rabbit): > 7,940 mg/kg

FORMALDEHYDE:

Acute oral toxicity : LD 50 (Guinea pig): 260 mg/kg
 LD 50 (Rat): 100 mg/kg
 LD 50 (Rat, Male): 800 mg/kg
 Assessment: The component/mixture is classified as acute oral toxicity, category 3.

Acute inhalation toxicity : LC 50 (Rat): 588 mg/m3
 Exposure time: 4 h
 Test atmosphere: gas
 Assessment: The component/mixture is classified as acute inhalation toxicity, category 3.

Acute dermal toxicity : LD 50 (Rabbit): 288 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation in susceptible persons.

Components:

ACETONE:

Result: Mildly irritating to skin

Result: Repeated exposure may cause skin dryness or cracking.

METHYL ETHYL KETONE:

Result: Not irritating to skin

CALCIUM CARBONATE:

ASHLAND	Page: 12
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

Result: Not irritating to skin

BENZOTHIAZYL DISULFIDE:

Result: Mildly irritating to skin

FORMALDEHYDE:

Result: Causes burns.

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:

ACETONE:

Result: Irritating to eyes

METHYL ETHYL KETONE:

Result: Irritating to eyes

CALCIUM CARBONATE:

Result: Not irritating to eyes

BENZOTHIAZYL DISULFIDE:

Result: Mildly irritating to eyes

FORMALDEHYDE:

Result: Corrosive to eyes

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Components:

BENZOTHIAZYL DISULFIDE:

Assessment: May cause sensitization by skin contact.

FORMALDEHYDE:

Result: Does not cause respiratory sensitisation.

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Not classified based on available information.

Components:

FORMALDEHYDE:

Genotoxicity in vitro

: Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: without metabolic activation
Result: positive

: Test Type: Chromosome aberration test in vitro
Test species: mouse lymphoma cells

ASHLAND [®]	Page: 13
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

Metabolic activation: with and without metabolic activation
Result: positive

: Test Type: In vitro mammalian cell gene mutation test
Test species: Chinese hamster fibroblasts
Metabolic activation: with and without metabolic activation
Result: negative

: Test Type: in vitro assay
Test species: Human lymphocytes
Metabolic activation: with and without metabolic activation
Result: Conflicting results have been seen in different studies.

Genotoxicity in vivo

: Test Type: Micronucleus test
Test species: Mouse
Application Route: Oral
Result: negative

Test Type: Micronucleus test
Test species: Mouse
Application Route: inhalation (gas)
Result: negative

Test Type: in vivo assay
Test species: Rat
Application Route: inhalation (gas)
Result: negative

Test Type: Mouse specific locus test
Test species: Mouse
Application Route: inhalation (gas)
Result: negative

Test Type: Mammalian bone marrow sister chromatid
exchange
Test species: Rat
Application Route: inhalation (gas)
Result: negative

Test Type: comet assay
Test species: Rat
Application Route: inhalation (gas)
Result: negative

Carcinogenicity

May cause cancer.

Components:

FORMALDEHYDE:

Species: Rat

Application Route: Ingestion

Result: negative

Species: Mouse

ASHLAND®	Page: 14
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

Application Route: Dermal
 Result: negative

Species: Rat
 Application Route: Inhalation
 Result: positive
 Carcinogenicity - Assessment : Presumed to have carcinogenic potential for humans

Reproductive toxicity

Not classified based on available information.

Components:

FORMALDEHYDE:

Effects on fertility : Remarks: No data available
 Effects on foetal development : Species: Rat
 Result: No teratogenic effects

STOT - single exposure

May cause drowsiness or dizziness.

Components:

ACETONE:

Exposure routes: Inhalation
 Target Organs: Nervous system
 Assessment: May cause drowsiness or dizziness.

METHYL ETHYL KETONE:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

FORMALDEHYDE:

Species: Rat
 No observed adverse effect level: 82 mg/kg
 Application Route: Ingestion

Species: Rat
 No observed adverse effect level: 1.2 mg/m³
 Application Route: inhalation (gas)
 Target Organs: Nose, Upper respiratory tract

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Components:

ACETONE:

May be harmful if swallowed and enters airways.

ASHLAND	Page: 15
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

METHYL ETHYL KETONE:
 May be harmful if swallowed and enters airways.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

Components:

METHYL ETHYL KETONE:

Remarks: Central nervous system

Carcinogenicity:

IARC	Group 1: Carcinogenic to humans
	FORMALDEHYDE 50-00-0
OSHA	OSHA specifically regulated carcinogen
	FORMALDEHYDE 50-00-0
NTP	Known to be human carcinogen
	FORMALDEHYDE 50-00-0

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

ACETONE:

Toxicity to fish	: LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss)): 4,740 - 6,330 mg/l Exposure time: 96 h Test Type: static test
	LC 50 (Fathead minnow (Pimephales promelas)): 8,733 - 9,482 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to algae	: NOEC (Microcystis aeruginosa): 530 mg/l Exposure time: 8 d Test Type: static test
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 2,112 mg/l Exposure time: 28 d Test Type: flow-through test

ASHLAND [®]	Page: 16
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

METHYL ETHYL KETONE:

Toxicity to fish : LC 50 (Fathead minnow (*Pimephales promelas*)): 3,130 - 3,320 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (*Daphnia magna*)): 4,025 - 6,440 mg/l
Exposure time: 48 h
Test Type: static test
Remarks: Intoxication

CALCIUM CARBONATE:

Toxicity to fish : LC 50 (*Gambusia affinis* (Mosquito fish)): > 56,000 mg/l
Exposure time: 96 h
Test Type: static test

FORMALDEHYDE:

Toxicity to fish : LC 50 (*Danio rerio* (zebra fish)): 41 mg/l
Exposure time: 96 h
Method: Static
Remarks: Mortality

LC 50 (*Striped bass* (*Morone saxatilis*)): 6.7 mg/l
Exposure time: 96 h
Method: Static

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (*Daphnia magna*)): 29 mg/l
Exposure time: 48 h
Method: Static
Remarks: Intoxication

EC 50 (Water flea (*Daphnia pulex*)): 5.8 mg/l
Exposure time: 48 h

Toxicity to algae : ErC50 (*Desmodesmus subspicatus*): 4.89 mg/l
Exposure time: 72 h

Toxicity to bacteria : EC 50 (activated sludge): 19 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition

Persistence and degradability

Components:

ACETONE:

Biodegradability : Result: Readily biodegradable
Biodegradation: 90.9 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

FORMALDEHYDE:

Biodegradability : aerobic

ASHLAND [®]	Page: 17
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

Result: Readily biodegradable
 Biodegradation: 90 %
 Exposure time: 28 d
 Method: OECD Test Guideline 301D

aerobic
 Result: Readily biodegradable
 Biodegradation: > 90 %
 Exposure time: 2 Weeks
 Method: OECD Test Guideline 301C

Photodegradation :

Bioaccumulative potential

Components:

ACETONE:

Partition coefficient: n-octanol/water : log Pow: -0.24

METHYL ETHYL KETONE:

Partition coefficient: n-octanol/water : log Pow: 0.29

FORMALDEHYDE:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-octanol/water : log Pow: 0.35 (25 °C)

Mobility in soil

Components:

No data available

Other adverse effects

Product:

Additional ecological information : No data available

Components:

FORMALDEHYDE:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SAFETY DATA SHEET

Revision Date: 05/26/2015

Print Date: 6/2/2015

SDS Number: A-204

Pliobond™ 35 ADHESIVE
 ™ Trademark, Ashland or its subsidiaries, registered
 in various countries
 167510

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

General advice

- : Do not dispose of waste into sewer.
 Do not contaminate ponds, waterways or ditches with
 chemical or used container.
 Send to a licensed waste management company.
- Dispose of in accordance with all applicable local, state and
 federal regulations.

Contaminated packaging

- : Empty remaining contents.
 Dispose of as unused product.
 Empty containers should be taken to an approved waste
 handling site for recycling or disposal.
 Do not re-use empty containers.
 Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION**International transport regulations****REGULATION**

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

U.S. DOT - ROAD

UN	1133	Adhesives	3	II	
----	------	-----------	---	----	--

U.S. DOT - RAIL

UN	1133	Adhesives	3	II	
----	------	-----------	---	----	--

U.S. DOT - INLAND WATERWAYS

UN	1133	Adhesives	3	II	
----	------	-----------	---	----	--

TRANSPORT CANADA - ROAD

UN	1133	ADHESIVES	3	II	
----	------	-----------	---	----	--

TRANSPORT CANADA - RAIL

UN	1133	ADHESIVES	3	II	
----	------	-----------	---	----	--

TRANSPORT CANADA - INLAND WATERWAYS

UN	1133	ADHESIVES	3	II	
----	------	-----------	---	----	--

ASHLAND		Page: 19
SAFETY DATA SHEET		Revision Date: 05/26/2015
		Print Date: 6/2/2015
		SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510		

INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1133	ADHESIVES	3	II
----	------	-----------	---	----

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	1133	Adhesives	3	II
----	------	-----------	---	----

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1133	Adhesives	3	II
----	------	-----------	---	----

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	1133	ADHESIVOS	3	II
----	------	-----------	---	----

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
------------------	----

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.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ACETONE	67-64-1	5000	8036.517938

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Chronic Health Hazard

SARA 313 Component(s)
FORMALDEHYDE 50-00-0 0.10 %

California Prop 65 WARNING! This product contains a chemical known to the State of California to cause cancer.
FORMALDEHYDE 50-00-0
VINYL CYCLOHEXENE, 4- 100-40-3

ASHLAND		Page: 20
SAFETY DATA SHEET		Revision Date: 05/26/2015
		Print Date: 6/2/2015
		SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510		

BENZENE 71-43-2

ACRYLONITRILE 107-13-1

1,3, BUTADIENE 106-99-0

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

VINYLCYCLOHEXENE, 4- 100-40-3

BENZENE 71-43-2

1,3, BUTADIENE 106-99-0

The components of this product are reported in the following inventories:

- TSCA : On TSCA Inventory
- DSL : All components of this product are on the Canadian DSL.
- AUSTR : On the inventory, or in compliance with the inventory
- ENCS : Not in compliance with the inventory
- KECL : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

ASHLAND	Page: 21
SAFETY DATA SHEET	Revision Date: 05/26/2015
	Print Date: 6/2/2015
	SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510	

SECTION 16. OTHER INFORMATION

Further information

Revision Date: 05/26/2015

NFPA:	HMIS III:						
<p>Flammability</p> <p>Health</p> <p>Instability</p> <p>Special hazard.</p>	<table border="1"> <tr> <td>HEALTH</td> <td>2*</td> </tr> <tr> <td>FLAMMABILITY</td> <td>3</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td>0</td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	2*	FLAMMABILITY	3	PHYSICAL HAZARD	0
HEALTH	2*						
FLAMMABILITY	3						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification
not determined

Full text of H-Statements referred to under sections 2 and 3.

- H225 Highly flammable liquid and vapor.
- H227 Combustible liquid.
- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H336 May cause drowsiness or dizziness.
- H350 May cause cancer.

Sources of key data used to compile the Safety Data Sheet
Ashland internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

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 SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

ASHLAND		Page: 22
SAFETY DATA SHEET		Revision Date: 05/26/2015
		Print Date: 6/2/2015
		SDS Number: A-204
Pliobond™ 35 ADHESIVE ™ Trademark, Ashland or its subsidiaries, registered in various countries 167510		

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
 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