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29 CFR 1910.1200 (OSHA HazCom 2012)

#### **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier** 

Trade name : Pliobond™ 20

ADHESIVE

™ Trademark, Ashland or its subsidiaries, registered in

various countries

Relevant identified uses of the substance or mixture and uses advised against

Recommended use : ADHESIVE

**sheet** 1-800-ASHLAND (1-800-274-5263)

Ashland
P.O. Box 2219

Regulatory Information Number

Columbus, OH 43216 1-614-790-3333

EHSProductSafety@ashland.com

#### **SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification** 

Flammable liquids : Category 2

Skin irritation : Category 2

Eye irritation : Category 2A

Skin sensitization : Category 1

Germ cell mutagenicity : Category 2

Carcinogenicity : Category 1B

Specific target organ : Category 3 (Central nervous system)

systemic toxicity - single

exposure

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Specific target organ systemic toxicity - repeated

exposure

: Category 2 (Skin, Nervous system, Liver, Kidney)

#### **GHS** label elements

Hazard pictograms







Page: 2

Signal Word : Danger

Hazard Statements : Highly flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of causing genetic defects.

May cause cancer.

May cause damage to organs (Skin, Nervous system, Liver,

Kidney) through prolonged or repeated exposure.

# 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. Do not breathe 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/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes.

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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. Take off contaminated clothing and wash 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

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
METHYL ETHYL KETONE	78-93-3	Flam. Liq. 2; H225	76.792
		Eye Irrit. 2A; H319	
		STOT SE 3; H336	
CALCIUM CARBONATE	471-34-1	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	2.7452
PHENOL	108-95-2	Comb Dust Acute Tox. 3; H301	1.088
		Acute Tox. 3; H331	

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		Acute Tox. 3; H311	
		Skin Corr. 1; H314	
		Eye Dam. 1; H318	
		Muta. 2; H341	
		STOT RE 2; H373	
FORMALDEHYDE	50-00-0	Flam. Liq. 4; H227	0.136
		Acute Tox. 3; H301	
		Acute Tox. 2; H330	
		Acute Tox. 3; H311	
		Skin Corr. 1B; H314	
		Eye Dam. 1; H318	
		Skin Sens. 1A; H317	
		Muta. 2; H341	
		Carc. 1B; H350	

# **SECTION 4. FIRST AID MEASURES**

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.

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If on skin, rinse well with 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.

Do not induce vomiting. Phenol concentrations greater than 1.5% produce irritation and greater than 5% are corrosive; vomiting can cause further damage to the mouth and throat. Do not dilute the swallowed material, since this may enhance its absorption. Seek immediate medical attention. If possible, do not leave the individual unattended. Vomiting and diarrhea

may occur spontaneously.

Most important symptoms and effects, both acute and delayed

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)

Cough Headache

low body temperature irregular heartbeat

cyanosis (causes blue coloring of the skin and nails from lack

of oxygen)

lung edema (fluid buildup in the lung tissue)

Convulsions respiratory failure Difficulty in breathing

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.

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.

Pulmonary edema may be delayed.

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Causes skin irritation.

May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness

May cause drowsiness or dizziness. Suspected of causing genetic defects.

May cause cancer.

May cause damage to organs through prolonged or repeated

exposure.

Notes to physician : Phenol adsorbs to activated charcoal, and it maybe preferable

to ipecac-induced emesis because seizures or coma may onset rapidly and because of the corrosive effects of phenol. A usual activated charcoal dose in adults is 30-100 g and in

children is 15-30 g. Activated charcoal should be

administered with, or followed by, a cathartic. If endoscopy is planned, charcoal may obscure visualization of affected areas. Gastric lavage may be indicated if it is performed soon after ingestion or in patients who are comatose or at risk of seizures. Monitor for seizures, metabolic acidosis and

ventricular dysrhythmias.

#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Water spray

Foam Alcohol-resis

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 (CO2) Carbon monoxide Nitrogen oxides (NOx)

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Hydrogen cyanide (hydrocyanic acid)

Organic acids

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.

for firefighters

Special protective equipment : 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.

: Prevent product from entering drains. **Environmental precautions** 

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

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.

Suppress (knock down) gases/vapours/mists with a water

spray jet.

# **SECTION 7. HANDLING AND STORAGE**

: Open drum carefully as content may be under pressure. Advice on safe handling

Avoid formation of aerosol.

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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.

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
METHYL ETHYL KETONE	78-93-3	TWA	200 ppm	ACGIH
		STEL	300 ppm	ACGIH
		TWA	200 ppm 590 mg/m3	NIOSH REL
		ST	300 ppm 885 mg/m3	NIOSH REL
		TWA	200 ppm 590 mg/m3	OSHA Z-1
		TWA	200 ppm 590 mg/m3	OSHA P0
		STEL	300 ppm 885 mg/m3	OSHA P0
		PEL	200 ppm	CAL PEL

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		1	590 mg/m3	1 1
		STEL	300 ppm 885 mg/m3	CAL PEL
CALCIUM CARBONATE	471-34-1	PEL	10 mg/m3 Total dust	CAL PEL
		PEL	5 mg/m3 respirable dust fraction	CAL PEL
		TWA	5 mg/m3 Respirable (Calcium carbonate)	NIOSH REL
		TWA	10 mg/m3 total (Calcium carbonate)	NIOSH REL
PHENOL	108-95-2	TWA	5 ppm	ACGIH
		TWA	5 ppm 19 mg/m3	NIOSH REL
		С	15.6 ppm 60 mg/m3	NIOSH REL
		TWA	5 ppm 19 mg/m3	OSHA Z-1
		TWA	5 ppm 19 mg/m3	OSHA P0
		PEL	5 ppm 19 mg/m3	CAL PEL
FORMALDEHYDE	50-00-0	TWA	0.016 ppm	NIOSH REL
		С	0.1 ppm	NIOSH REL
		PEL	0.75 ppm	OSHA CARC
		STEL	2 ppm	OSHA CARC
		PEL	0.75 ppm	CAL PEL
		STEL	2 ppm	CAL PEL
		TWA	0.016 ppm (Formaldehyde)	NIOSH REL
		С	0.1 ppm (Formaldehyde)	NIOSH REL
		TWA	0.1 ppm	ACGIH
		STEL	0.3 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentrati on	Basis
METHYL ETHYL KETONE	78-93-3	methyl ethyl ketone	Urine	End of shift (As	2 mg/l	ZUS_A CGIHB

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				soon as possible after exposure ceases)		
PHENOL	108-95-2	Phenol	Urine	End of shift (As soon as possible after exposure ceases)	250 mg/g Creatinine	ZUS_A CGIHB

**Engineering measures** 

: 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.

Personal protective equipment

Respiratory protection

In the case of vapour formation use a respirator with an approved filter within the capabilities of the respirator/filter

combination.

Where concentrations are above recommended limits or are unknown, or a cartridge type respirator is not adequate, wear

a positive-pressure supplied-air respirator.

Hand protection

Material : butyl-rubber
Break through time : 480 min
Glove thickness : > 0.5 mm

Remarks : The exact break through time can be obtained from the

protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

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 resistant gloves (consult your safety equipment

supplier).

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.

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

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

pH : No data available

Melting point/freezing point : No data available

Boiling point/boiling range : 176 °F / 80 °C

(1013 hPa)

Flash point : -5 °C

Method: Tag open cup

Evaporation rate : 1

Ethyl Ether = 1

Flammability (solid, gas) : No data available

Upper explosion limit : 12.0 %(V)

Lower explosion limit : 2.0 %(V)

Vapour pressure : 71.0000 mmHg (68.00 °F)

Relative vapour density : 2.5(Air = 1.0)

Relative density : 0.8629 (25 °C)

Density : 0.8629 g/cm3 (25 °C)

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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

reactions

: Vapours may form explosive mixture with air.

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 : excessive heat

Heat, flames and sparks.

Incompatible materials : 1,3-butadiene

ammonium salts aluminum aluminum salts

Amines Copper Copper alloys

halogenated hydrocarbons

halogens Iron

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Lead

magnesium strong alkalis strong mineral acids Strong oxidizing agents

Zinc

Hazardous decomposition

products

Carbon monoxide Carbon dioxide (CO2)

calcium oxide Hydrocarbons Acetone

# **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of : Inhalation

exposure

: Inhalation Skin contact Eye Contact Ingestion

**Acute toxicity** 

Not classified based on available information.

Components:

METHYL ETHYL KETONE:

Acute oral toxicity : LD50 (Rat): 2,300 - 3,500 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

CALCIUM CARBONATE:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 420

Assessment: No adverse effect has been observed in acute

oral toxicity tests.

Acute inhalation toxicity : LC50 (Rat): > 3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: OECD Test Guideline 403

Assessment: Not classified as acutely toxic by inhalation

under GHS.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

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Assessment: Not classified as acutely toxic by dermal

absorption under GHS.

PHENOL:

Acute oral toxicity : LD50 (Rat): 317 mg/kg

LD50 (Mouse): 270 mg/kg

Assessment: The component/mixture is classified as acute

oral toxicity, category 3.

Acute inhalation toxicity : Assessment: The component/mixture is classified as acute

inhalation toxicity, category 3.

Acute dermal toxicity : LD50 (Rabbit): 850 mg/kg

LD50 (Rat, females): 660 mg/kg

FORMALDEHYDE:

Acute oral toxicity : LD50 (Guinea pig): 260 mg/kg

LD50 (Rat): 100 mg/kg

LD50 (Rat, male): 800 mg/kg

Assessment: The component/mixture is classified as acute

oral toxicity, category 3.

Acute inhalation toxicity : LC50 (Rat): 588 mg/m3

Exposure time: 4 h
Test atmosphere: gas

Assessment: The component/mixture is classified as acute

inhalation toxicity, category 2.

Acute dermal toxicity : LD50 (Rabbit): 288 mg/kg

## Skin corrosion/irritation

Causes skin irritation.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation and/or dermatitis.

Components:

METHYL ETHYL KETONE: Result: No skin irritation

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**CALCIUM CARBONATE:** 

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

PHENOL:

Result: Corrosive to skin

FORMALDEHYDE:

Species: Rat

Exposure time: 40 min

Result: Corrosive after 3 minutes to 1 hour of exposure

## 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:

METHYL ETHYL KETONE: Result: Irritating to eyes.

#### **CALCIUM CARBONATE:**

Species: Rabbit

Result: Slight, transient irritation Method: OECD Test Guideline 405

PHENOL:

Result: Corrosive

# FORMALDEHYDE:

Result: Corrosive

#### Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Components:

**CALCIUM CARBONATE:** 

Test Type: Local lymph node assay

Species: Mouse

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 429

Result: Did not cause sensitisation on laboratory animals.

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PHENOL:

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Test Type: Buehler Test Exposure routes: Dermal Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 406

**Exposure routes: Dermal** 

Species: Mouse

Assessment: Did not cause sensitisation on laboratory animals.

Result: negative

FORMALDEHYDE:

Assessment: The product is a skin sensitiser, sub-category 1A.

Test Type: Maximisation Test

Species: Guinea pig

Method: OECD Test Guideline 406

Result: May cause sensitisation by skin contact.

Test Type: Buehler Test Species: Guinea pig

Method: OECD Test Guideline 406

Result: May cause sensitisation by skin contact.

Test Type: Local lymph node assay

Species: Mouse

Method: OECD Test Guideline 429 Result: Causes sensitisation.

Germ cell mutagenicity

Suspected of causing genetic defects.

Components:

**CALCIUM CARBONATE:** 

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Test species: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

PHENOL:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Test species: Chinese hamster ovary cells Metabolic activation: with metabolic activation

Method: OECD Test Guideline 473

Result: positive

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: Test Type: Micronucleus test

Test species: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 487

Result: positive

Genotoxicity in vivo : Test Type: Micronucleus test

Test species: Mouse (male and female) Application Route: Intraperitoneal injection

Method: OECD Test Guideline 474

Result: positive

Germ cell mutagenicity-

Assessment

: In vitro tests showed mutagenic effects

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

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

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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

Germ cell mutagenicity-

Assessment

: In vitro tests showed mutagenic effects which were not

observed with in vivo test.

#### Carcinogenicity

May cause cancer.

<u>Components:</u>

FORMALDEHYDE:
Species: Rat

Application Route: Ingestion

Result: negative

Species: Mouse

Application Route: Dermal

Result: negative

Species: Rat

**Application Route: Inhalation** 

Result: positive

Carcinogenicity -

: Presumed to have carcinogenic potential for humans

Assessment

#### Reproductive toxicity

Not classified based on available information.

<u>Components:</u> FORMALDEHYDE:

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Effects on fertility : Remarks: No data available

Effects on foetal : Species: Rat

development Result: No teratogenic effects

#### STOT - single exposure

May cause drowsiness or dizziness.

Components:

METHYL ETHYL KETONE:

Assessment: May cause drowsiness or dizziness.

#### STOT - repeated exposure

May cause damage to organs (Skin, Nervous system, Liver, Kidney) through prolonged or repeated exposure.

Components: PHENOL:

Target Organs: Skin

Assessment: May cause damage to organs through prolonged or repeated exposure.

Target Organs: Nervous system

Assessment: May cause damage to organs through prolonged or repeated exposure.

Target Organs: Liver

Assessment: May cause damage to organs through prolonged or repeated exposure.

Target Organs: Kidney

Assessment: May cause damage to organs through prolonged or repeated exposure.

#### 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:

METHYL ETHYL KETONE:

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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

PHENOL:

Remarks: Central nervous system

Remarks: Blood

Carcinogenicity:

IARC Group 1: Carcinogenic to humans

FORMALDEHYDE 50-00-0

OSHA specifically regulated carcinogen

FORMALDEHYDE 50-00-0

NTP Known to be human carcinogen

FORMALDEHYDE 50-00-0

# **SECTION 12. ECOLOGICAL INFORMATION**

# **Ecotoxicity**

# **Product:**

**Ecotoxicology Assessment** 

Short-term (acute) aquatic

hazard

: Acute aquatic toxicity Category 3; Harmful to aquatic life.

: Chronic aquatic toxicity Category 3; Harmful to aquatic life

Long-term (chronic) aquatic

hazard

with long lasting effects.

IIazaiu

<u>Components:</u>
METHYL ETHYL KETONE:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 3,130 - 3,320

mg/l

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Exposure time: 96 h

Test Type: flow-through test

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 4,025 - 6,440 mg/l

Exposure time: 48 h Test Type: static test Remarks: Intoxication

**CALCIUM CARBONATE:** 

Toxicity to fish : LC50 (Gambusia affinis (Mosquito fish)): > 56,000 mg/l

Exposure time: 96 h Test Type: static test

PHENOL:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 7.5 - 14 mg/l

Exposure time: 96 h Test Type: static test

LC50 (Pimephales promelas (fathead minnow)): 67.5 mg/l

Exposure time: 96 h

Test Type: flow-through test

LC50 (Danio rerio (zebra fish)): 27.8 mg/l

Exposure time: 96 h Method: static test Remarks: mortality

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia pulex (Water flea)): 3.1 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 61.1

mg/l

Exposure time: 96 h Test Type: static test

Toxicity to fish (Chronic

toxicity)

: NOEC (Fish): 0.077 mg/l Exposure time: 60 d

Test Type: semi-static test

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: NOEC (Daphnia magna (Water flea)): 0.16 mg/l

Exposure time: 16 d Test Type: semi-static test

FORMALDEHYDE:

Toxicity to fish : LC50 (Striped bass (Morone saxatilis)): 6.7 mg/l

Exposure time: 96 h

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Method: static test

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 29 mg/l

Exposure time: 48 h Method: Static Remarks: Intoxication

EC50 (Daphnia pulex (Water flea)): 5.8 mg/l

Exposure time: 48 h

Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): 4.89 mg/l

Exposure time: 72 h

Toxicity to bacteria : EC50 (activated sludge): 19 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition

Persistence and degradability

Components:

PHENOL:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 62 % Exposure time: 100 h

Method: OECD Test Guideline 301C

FORMALDEHYDE:

Biodegradability : aerobic

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 :

No data available

Bioaccumulative potential

**Components:** 

METHYL ETHYL KETONE:

Partition coefficient: n-

octanol/water

: log Pow: 0.29

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PHENOL:

Partition coefficient: n-

octanol/water

: log Pow: 1.46

FORMALDEHYDE:

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

4).

Partition coefficient: n-

octanol/water

: log Pow: 0.35 (25 °C)

No data available **Mobility in soil Components:** PHENOL:

Distribution among

: Medium: Soil

environmental compartments

Koc: > 14 - < 73Method: OECD Test Guideline 121

No data available
Other adverse effects

Product:

Additional ecological

information

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life

with long lasting effects.

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).

# **SECTION 13. DISPOSAL CONSIDER ATIONS**

**Disposal methods** 

General advice : Dispose of in accordance with all applicable local, state and

federal regulations.

The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.

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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

REGULA	TION					
ID NUMB	BER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
MX_DG_						
UN _	1133	ADHESIVES	3		·II	
INTERNAT	ΊΟΝΔΙ	. AIR TRANSPORT ASSOCIATI	ON - PASSEN	GER		
	1133	Adhesives	3		. II	•
INTERNAT	ΊΟΝΔΙ	. AIR TRANSPORT ASSOCIATI	ON - CARGO			
	1133	Adhesives	<u>3</u>		<u>. II</u>	
INTERNAT	TONAL	MARITIME DANCEROUS CO.				
	1133	<u>ADHESIVES</u>	<u>3</u>		- <u> </u>	·
TDG_INW1	Г_С					
UN _	1133	ADHESIVES	3	•	· II	
TDG_RAIL	С					
	1133	ADHESIVES	3		. II	
TDG ROAI	D C					
	1133	ADHESIVES	3	-	· II	
			<b>~</b>	•	···	•
U.S. DOT <u>-</u>	INLAN	ID WATERWAYS				
UN _	1133	Adhesives	3		. II	

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CFR\_RAIL\_C

UN	1133	Adhesives	_	3	II	
		•	-	•	•	

# U.S. DOT - ROAD

UN	1133	Adhesives	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	Calculated product RQ
		(lbs)	(lbs)
METHYL ETHYL KETONE	78-93-3	5000	6511

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
ORTHO CRESOL	95-48-7	100	36765

SAR A 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)

Skin corrosion or irritation

Serious eye damage or eye irritation Respiratory or skin sensitisation

Germ cell mutagenicity

Carcinogenicity

Specific target organ toxicity (single or repeated exposure)

SAR A 302 :

PHENOL 108-95-2 1.08 %

SARA 313 The following components are subject to reporting levels

established by SARA Title III, Section 313:

SP Ashland always solving	Page: 26 Packaged & Marketed Nationally by THE RUSCOE COMPANY 485 Kenmore Blvd. Akron, Ohio 44301 330-253-8148 TOLL FREE 800-293-8148 FAX 330-253-2933
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PHENOL 108-95-2 1.08 %

FORMALDEHYDE 50-00-0 0.13 %

# California Prop. 65

WARNING: This product can expose you to chemicals including formaldehyde...%, 4-vinylcyclohexene, acrylonitrile, 1,3-butadiene, which is/are known to the State of California to cause cancer, and 4-vinylcyclohexene, 1,3-butadiene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECI : 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

TCSI : On the inventory, or in compliance with the inventory

TSCA : On TSCA Inventory

# **Inventories**

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

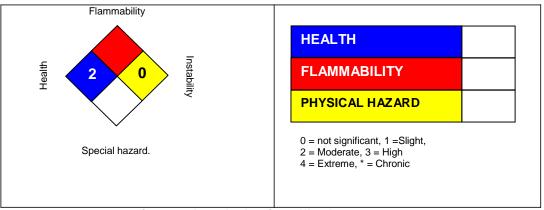
# **SECTION 16. OTHER INFORMATION**

**Further information** 

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NFPA:	HMIS III:

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NFPA Flammable and Combustible Liquids Classification

Flammable Liquid Class IB

# **Full text of H-Statements**

I ull lext of H-Statellie	ito
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.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

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

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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).

#### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL -Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS -Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA -National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD -Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS -Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative