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		Print Date: 7/14/2015
		SDS Number: R0411195
VP&C KHAKI DYE		Version: 1.0
E12012		

29 CFR 1910.1200 (OSHA HazCom 2012)

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

### Product identifier

Trade name : VP&C KHAKI DYE

### Recommended use of the chemical and restrictions on use

<b>Details of the supplier of the safety data sheet</b> Ashland P.O. Box 2219 Columbus, OH 43216 United States of America  EHS Customer Requests@ashland.com	<b>Emergency telephone number</b> 1-800-ASHLAND (1-800-274-5263)  <b>Regulatory Information Number</b> 1-800-325-3751  <b>Product Information</b> 614-790-3333
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## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

- Flammable aerosols : Category 1
- Acute toxicity (Oral) : Category 4
- Skin irritation : Category 2
- Serious eye damage : Category 1
- Reproductive toxicity : Category 2
- Specific target organ systemic toxicity - single exposure : Category 3 (Central nervous system)
- Specific target organ systemic toxicity - repeated exposure : Category 2 (Auditory system)
- Specific target organ systemic toxicity - repeated exposure (Inhalation) : Category 2 (Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision))

### GHS Label element

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Hazard pictograms :



Signal Word :

Danger

Hazard Statements :

Extremely flammable aerosol.  
Harmful if swallowed.  
Causes skin irritation.  
Causes serious eye damage.  
May cause drowsiness or dizziness.  
Suspected of damaging fertility or the unborn child.  
May cause damage to organs (Auditory system) through prolonged or repeated exposure.  
May cause damage to organs (Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision)) through prolonged or repeated exposure if inhaled.

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.  
Do not spray on an open flame or other ignition source.  
Pressurized container: Do not pierce or burn, even after use.  
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
IF ON SKIN: Wash with plenty of soap and water.  
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. Immediately call a POISON CENTER or doctor/ physician.  
IF exposed or concerned: Get medical advice/ attention.  
If skin irritation occurs: Get medical advice/ attention.  
Take off contaminated clothing and wash before reuse.

**Storage:**  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

**Disposal:**

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

**Other hazards**

None known.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture  
 Chemical nature : Aspiration hazard  
 Chemical nature : Static Accumulator  
 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	34.99
TOLUENE	108-88-3	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 Repr. 2; H361 STOT SE 3; H336 STOT RE 2; H373 Asp. Tox. 1; H304	19.99
METHYL ETHYL KETONE	78-93-3	Flam. Liq. 2; H225 Eye Irrit. 2A; H319 STOT SE 3; H336	9.99
BUTANOL NORMAL	71-36-3	Flam. Liq. 3; H226	4.99

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		Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335, H336	
XYLENE	1330-20-7	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335, H336 Asp. Tox. 1; H304	4.99
TALC	14807-96-6	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	4.99
LIMESTONE	1317-65-3		4.99
ETHYL BENZENE	100-41-4	Flam. Liq. 2; H225 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT RE 2; H373 Asp. Tox. 1; H304	2.49

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#### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
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.  
Wash contaminated clothing before re-use.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Protect unharmed eye.
- If swallowed : Obtain medical attention.  
Do NOT induce vomiting.  
Rinse mouth with water.  
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.  
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.
- Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:  
redness of the skin  
stomach or intestinal upset (nausea, vomiting, diarrhea)  
irritation (nose, throat, airways)  
Cough  
discomfort in the chest  
temporary changes in mood and behavior  
effects on memory  
Blurred vision  
Shortness of breath  
confusion  
irregular heartbeat

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Harmful if swallowed.  
 Causes skin irritation.  
 Causes serious eye damage.  
 May cause drowsiness or dizziness.  
 Suspected of damaging fertility or the unborn child.  
 May cause damage to organs through prolonged or repeated exposure.  
 May cause damage to organs through prolonged or repeated exposure if inhaled.

Notes to physician : No hazards which require special first aid measures.

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## SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
 Water spray  
 Foam  
 Alcohol-resistant foam  
 Carbon dioxide (CO<sub>2</sub>)  
 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  
 Hydrocarbons  
 toxic fumes  
 Aldehydes  
 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.

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## 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.
- Other information : Comply with all applicable federal, state, and local regulations.  
Suppress (knock down) gases/vapours/mists with a water spray jet.

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## SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Open drum carefully as content may be under pressure.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Do not breathe vapours/dust.  
Do not smoke.  
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 : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.  
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.

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### 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 590 mg/m <sup>3</sup>	NIOSH/GUID E
		PEL	1,000 ppm 2,400 mg/m <sup>3</sup>	OSHA_TRANS
		TWA	250 ppm	ACGIHLIS_P
		STEL	500 ppm	ACGIHLIS_P
		TWA	750 ppm 1,800 mg/m <sup>3</sup>	Z1A
		STEL	1,000 ppm 2,400 mg/m <sup>3</sup>	Z1A
TOLUENE	108-88-3	TWA	20 ppm	ACGIH
		REL	100 ppm 375 mg/m <sup>3</sup>	NIOSH/GUID E
		STEL	150 ppm 560 mg/m <sup>3</sup>	NIOSH/GUID E
		TWA	200 ppm	OSHA/Z2
		Ceiling	300 ppm	OSHA/Z2
		MAX. CONC	500 ppm	OSHA/Z2
METHYL ETHYL KETONE	78-93-3	TWA	200 ppm	ACGIH
		STEL	300 ppm	ACGIH
		REL	200 ppm 590 mg/m <sup>3</sup>	NIOSH/GUID E
		STEL	300 ppm 885 mg/m <sup>3</sup>	NIOSH/GUID E
		PEL	200 ppm 590 mg/m <sup>3</sup>	OSHA_TRANS
BUTANOL NORMAL	71-36-3	TWA	20 ppm	ACGIH
		Ceil_Time	50 ppm 150 mg/m <sup>3</sup>	NIOSH/GUID E
		PEL	100 ppm 300 mg/m <sup>3</sup>	OSHA_TRANS
XYLENE	1330-20-7	TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		PEL	100 ppm 435 mg/m <sup>3</sup>	OSHA_TRANS
		REL	100 ppm 435 mg/m <sup>3</sup>	NIOSH/GUID E
		STEL	150 ppm 655 mg/m <sup>3</sup>	NIOSH/GUID E
TALC	14807-96-6	TWA	2 mg/m <sup>3</sup> Respirable	ACGIH



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		REL	fraction. 2 mg/m3 Respirable.	NIOSH/GUID E
		TWA	0.1 mg/m3 Respirable.	Z3
		TWA	0.3 mg/m3 Total dust.	Z3
LIMESTONE	1317-65-3	REL	10 mg/m3 Total	NIOSH/GUID E
		REL	5 mg/m3 Respirable.	NIOSH/GUID E
		PEL	5 mg/m3 Respirable fraction.	OSHA_TRA NS
		PEL	15 mg/m3 Total dust.	OSHA_TRA NS
		TWA	15 mg/m3 Total dust.	Z1A
		TWA	5 mg/m3 Respirable fraction.	Z1A
ETHYL BENZENE	100-41-4	TWA	20 ppm	ACGIH
		REL	100 ppm 435 mg/m3	NIOSH/GUID E
		STEL	125 ppm 545 mg/m3	NIOSH/GUID E
		PEL	100 ppm 435 mg/m3	OSHA_TRA NS

### 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					
TOLUENE	108-88-3	o-Cresol, with hydrolysis	Creatinine in urine	Sampling time: End of shift.	0.3 mg/g	
Remarks:	Background					
		toluene	Urine	Sampling time: End of shift.	0.03 mg/l	
		toluene	Blood	Sampling time: Prior to last shift of work week.	0.02 mg/l	

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METHYL ETHYL KETONE	78-93-3	methylEthyl Ketone	Urine	Sampling time: End of shift.	2 mg/l	ACGIH BEI
Remarks:	Nonspecific					
XYLENE	1330-20-7	Methylhippuric acids	Creatinine in urine	Sampling time: End of shift.	1.5 g/g	
ETHYL BENZENE	100-41-4	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	Sampling time: End of shift.	0.15 g/g	ACGIH BEI
Remarks:	Nonspecific					

**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.  
In the case of dust or aerosol formation use 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 and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.  
Maintain eye wash station in immediate work area.

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.

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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.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : aerosol

Colour : coloured

Odour : hydrocarbon-like

Odour Threshold : No data available

pH : No data available

: No data available

: No data available

Flash point : -155 °F / -104 °C  
Value for Component

Evaporation rate : > 1  
n-Butyl Acetate

Flammability (solid, gas) :  
  
No data available

Flammability (liquids) : Static Accumulating liquid

Flammability (liquids) : Static Accumulating liquid

Flammability (liquids) :  
Upper explosion limit : 12.8 %(V)

Lower explosion limit : 1.0 %(V)

Vapour pressure : 85.0000 mmHg (60.00 °F)

Relative vapour density : > 1(Air = 1.0)

Relative density : No data available

Density : < 1 g/cm3 (15.5 °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

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#### 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.

Conditions to avoid : Heat, flames and sparks.  
 excessive heat

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

Hazardous decomposition products : calcium oxide  
 carbon dioxide and carbon monoxide

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Hydrocarbons  
toxic fumes

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## SECTION 11. TOXICOLOGICAL INFORMATION

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

### **Acute toxicity**

Harmful if swallowed.

#### **Product:**

Acute oral toxicity : LD50 : 636 mg/kg

Acute inhalation toxicity : LC50 : 23500 ppm

#### **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

##### **TOLUENE:**

Acute oral toxicity : LD 50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 8000 ppm  
Exposure time: 4 h

Acute dermal toxicity : LD 50 (Rabbit): 12,124 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

##### **BUTANOL NORMAL:**

Acute oral toxicity : LD 50 (Rat): 790 mg/kg

Acute inhalation toxicity : LC 50 (Rat): > 24 mg/l  
Exposure time: 4 h  
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 (Rabbit): 3,400 mg/kg

##### **XYLENE:**

Acute oral toxicity : LD 50 (Rat): 3,523 - 8,600 mg/kg

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Acute inhalation toxicity : LC 50 (Rat): 6700 ppm  
 Exposure time: 4 h  
 Test atmosphere: vapour

Acute dermal toxicity : LD 50 (Rabbit): 1,700 mg/kg

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

**ETHYL BENZENE:**  
 Acute oral toxicity : LD 50 (Rat): ca. 3,500 mg/kg

Acute inhalation toxicity : LC50 (Rat): 4000 ppm  
 Exposure time: 4 h  
 Test atmosphere: vapour

Acute dermal toxicity : LD 50 (Rabbit): 17,800 mg/kg

**Skin corrosion/irritation**

Causes skin irritation.

**Product:**

Remarks: May cause skin irritation and/or dermatitis.

Result: Repeated exposure may cause skin dryness or cracking.

**Components:**

**ACETONE:**

Result: Mildly irritating to skin

Result: Repeated exposure may cause skin dryness or cracking.

**TOLUENE:**

Result: Irritating to skin

**METHYL ETHYL KETONE:**

Result: Not irritating to skin

**BUTANOL NORMAL:**

Result: Irritating to skin

**XYLENE:**

Result: Irritating to skin

**TALC:**

Result: Possibly irritating to skin

**LIMESTONE:**

Result: Possibly irritating to skin

**ETHYL BENZENE:**

Result: Irritating to skin

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**Serious eye damage/eye irritation**

Causes serious eye damage.

**Product:**

Remarks: May cause irreversible eye damage.

**Components:**

ACETONE:

Result: Irritating to eyes

TOLUENE:

Result: Irritating to eyes

METHYL ETHYL KETONE:

Result: Irritating to eyes

BUTANOL NORMAL:

Result: Corrosive to eyes

XYLENE:

Result: Irritating to eyes

TALC:

Result: Possibly irritating to eyes

LIMESTONE:

Result: Possibly irritating to eyes

ETHYL BENZENE:

Result: Irritating to eyes

Remarks: Exposure to a concentration of 5000 ppm causes intolerable irritation of the eyes

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Suspected of damaging fertility or the unborn child.

**Components:**

TOLUENE:

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

**STOT - single exposure**

May cause drowsiness or dizziness.

**Components:**

ACETONE:

Exposure routes: Inhalation

Target Organs: Nervous system

Assessment: May cause drowsiness or dizziness.

TOLUENE:

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

**METHYL ETHYL KETONE:**  
 Assessment: May cause drowsiness or dizziness.

**BUTANOL NORMAL:**  
 Target Organs: Respiratory system  
 Assessment: May cause respiratory irritation.

Target Organs: Central nervous system  
 Assessment: May cause drowsiness or dizziness.

**XYLENE:**  
 Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

**STOT - repeated exposure**  
 May cause damage to organs (Auditory system) through prolonged or repeated exposure.  
 May cause damage to organs (Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision)) through prolonged or repeated exposure if inhaled.

**Components:**

**TOLUENE:**  
 Exposure routes: Inhalation  
 Target Organs: Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision)  
 Assessment: May cause damage to organs through prolonged or repeated exposure.

**ETHYL BENZENE:**  
 Target Organs: Auditory system  
 Assessment: May cause damage to organs through prolonged or repeated exposure.

**Aspiration toxicity**  
 Not classified based on available information.

**Product:**

No aspiration toxicity classification

**Components:**

**ACETONE:**  
 May be harmful if swallowed and enters airways.

**TOLUENE:**  
 May be fatal if swallowed and enters airways.

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

**XYLENE:**  
 May be fatal if swallowed and enters airways.

**ETHYL BENZENE:**  
 May be fatal if swallowed and enters airways.



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**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

ETHYL BENZENE:

Remarks: Central nervous system

**Carcinogenicity:**

**IARC**

Group 2B: Possibly carcinogenic to humans

TALC 14807-96-6

ETHYL BENZENE 100-41-4

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**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

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**TOLUENE:**

Toxicity to fish : LC50 (Oncorhynchus kisutch (coho salmon)): 5.5 mg/l  
 Exposure time: 96 h  
 Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Ceriodaphnia dubia)): 3.78 mg/l  
 Exposure time: 48 h  
 Remarks: Mortality

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): > 433 mg/l  
 End point: Growth inhibition  
 Exposure time: 96 h

NOEC (Scenedesmus quadricauda (Green algae)): > 400 mg/l  
 End point: Growth inhibition  
 Exposure time: 7 d

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 1.39 mg/l  
 Exposure time: 40 d  
 Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Water flea (Ceriodaphnia dubia)): 0.74 mg/l  
 Exposure time: 7 d

**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

**BUTANOL NORMAL:**

Toxicity to fish : LC 50 (Bluegill (Lepomis macrochirus)): > 100 - 500 mg/l  
 Exposure time: 96 h  
 Test Type: static test  
 Method: Static  
 Remarks: Mortality

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): 1,897 - 2,072 mg/l  
 Exposure time: 48 h  
 Test Type: static test  
 Method: Static  
 Remarks: Intoxication

**XYLENE:**

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Toxicity to fish : LC 50 (Fathead minnow (*Pimephales promelas*)): 23.53 - 29.97 mg/l  
 Exposure time: 96 h  
 Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (*Daphnia magna*)): > 100 - < 1,000 mg/l  
 Exposure time: 24 h  
 Test Type: static test

**ETHYL BENZENE:**

Toxicity to fish : LC 50 (Fathead minnow (*Pimephales promelas*)): 9.1 - 15.6 mg/l  
 Exposure time: 96 h  
 Test Type: static test

LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*)): 4.2 mg/l  
 Exposure time: 96 h  
 Test Type: Renewal

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (*Daphnia magna*)): 1.37 - 4.4 mg/l  
 Exposure time: 48 h  
 Test Type: static test

Toxicity to algae : (*Pseudokirchneriella subcapitata* (green algae)): 3.6 mg/l  
 End point: EC 50  
 Exposure time: 96 h  
 Test Type: Growth inhibition

**Persistence and degradability**

**Components:**

**ACETONE:**

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

**TOLUENE:**

Biodegradability : Result: Readily biodegradable

**BUTANOL NORMAL:**

Biodegradability : Result: Readily biodegradable  
 Biodegradation: 98 %  
 Exposure time: 19 d  
 Method: OECD Test Guideline 301E

Biochemical Oxygen Demand (BOD) : Theoretical oxygen demand  
 2.59 mg/g

Chemical Oxygen Demand (COD) : 2.45 mg/g  
 Method: Chemical oxygen demand

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**XYLENE:**

Physico-chemical removability : Remarks: The product evaporates readily.

**ETHYL BENZENE:**

Biodegradability : Result: Readily biodegradable  
Biodegradation: 70 - 80 %  
Exposure time: 28 d

**Bioaccumulative potential**

**Components:**

**ACETONE:**

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

**TOLUENE:**

Bioaccumulation : Species: Ide, silver or golden orfe (Leuciscus idus)  
Bioconcentration factor (BCF): 94  
Exposure time: 3 d  
Concentration: 0.05 mg/l  
Method: Not reported

Partition coefficient: n-octanol/water : log Pow: 2.73

**METHYL ETHYL KETONE:**

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

**BUTANOL NORMAL:**

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)  
Bioconcentration factor (BCF): 0.38  
Exposure time: 24 h  
Concentration: 921 mg/l  
Method: Static

Partition coefficient: n-octanol/water : log Pow: 0.88

**XYLENE:**

Partition coefficient: n-octanol/water : log Pow: 3.16

**ETHYL BENZENE:**

Partition coefficient: n-octanol/water : log Pow: 3.15

**Mobility in soil**

**Components:**

No data available

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**Other adverse effects**

No data available

**Product:**

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

**Components:**

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

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

Contaminated packaging : Empty remaining contents.  
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.

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

UN	1950	ORM-D, CONSUMER COMMODITY	2		

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

UN	1950	ORM-D, CONSUMER COMMODITY	2.1		

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

UN	1950	ORM-D, CONSUMER COMMODITY	2.1		

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**INTERNATIONAL MARITIME DANGEROUS GOODS**

UN	1950	AEROSOLS	2.1

**TRANSPORT CANADA - INLAND WATERWAYS**

UN	1950	AEROSOLS	2.1

**TRANSPORT CANADA - RAIL**

UN	1950	AEROSOLS	2.1

**TRANSPORT CANADA - ROAD**

UN	1950	AEROSOLS	2.1

**U.S. DOT - INLAND WATERWAYS**

	Aerosols, flammable	ORM

**U.S. DOT - RAIL**

	Aerosols, flammable	ORM

**U.S. DOT - ROAD**

	AEROSOLS	ORM

\*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)
XYLENE	1330-20-7	100	2000.040001

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

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### Chronic Health Hazard

#### SARA 313 Component(s)

TOLUENE	108-88-3	19.99 %
BUTANOL NORMAL	71-36-3	4.99 %
XYLENE	1330-20-7	4.99 %
ETHYL BENZENE	100-41-4	2.49 %

#### Pennsylvania Right To Know

CONTENTS PARTIALLY UNKNOWN	Not Assigned	30.00 - 50.00 %
ACETONE	67-64-1	30.00 - 50.00 %
LIQUIFIED PETROLEUM GASES, SWEETENED	68476-86-8	20.00 - 30.00 %
TOLUENE	108-88-3	10.00 - 20.00 %
METHYL ETHYL KETONE	78-93-3	5.00 - 10.00 %
BUTANOL NORMAL	71-36-3	1.00 - 5.00 %
XYLENE	1330-20-7	1.00 - 5.00 %
TALC	14807-96-6	1.00 - 5.00 %
LIMESTONE	1317-65-3	1.00 - 5.00 %
ETHYL BENZENE	100-41-4	1.00 - 5.00 %

#### New Jersey Right To Know

CONTENTS PARTIALLY UNKNOWN	Not Assigned	30.00 - 50.00 %
ACETONE	67-64-1	30.00 - 50.00 %
LIQUIFIED PETROLEUM GASES, SWEETENED	68476-86-8	20.00 - 30.00 %
TOLUENE	108-88-3	10.00 - 20.00 %
METHYL ETHYL KETONE	78-93-3	5.00 - 10.00 %
BUTANOL NORMAL	71-36-3	1.00 - 5.00 %
XYLENE	1330-20-7	1.00 - 5.00 %
TALC	14807-96-6	1.00 - 5.00 %
LIMESTONE	1317-65-3	1.00 - 5.00 %
ETHYL BENZENE	100-41-4	1.00 - 5.00 %

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**California Prop 65**

WARNING! This product contains a chemical known to the State of California to cause cancer.

ETHYL BENZENE                      100-41-4

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

TOLUENE                                108-88-3

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

- TSCA                                    : On the inventory, or in compliance with the inventory
- DSL                                     : This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.
- AUSTR                                 : Not in compliance with the inventory
- ENCS                                  : Not in compliance with the inventory
- KECL                                  : Not in compliance with the inventory
- PICCS                                 : Not in compliance with the inventory
- IECSC                                 : Not in compliance with the inventory

**Inventories**

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



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**SECTION 16. OTHER INFORMATION**

**Further information**

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<b>NFPA:</b>	<b>HMIS III:</b>						
<p style="text-align: center;">Flammability</p> <p style="text-align: center;">Special hazard.</p>	<table border="1"> <tr> <td style="background-color: blue; color: white;"><b>HEALTH</b></td> <td style="text-align: center;"><b>2*</b></td> </tr> <tr> <td style="background-color: red; color: white;"><b>FLAMMABILITY</b></td> <td style="text-align: center;"><b>4</b></td> </tr> <tr> <td style="background-color: yellow; color: black;"><b>PHYSICAL HAZARD</b></td> <td style="text-align: center;"><b>0</b></td> </tr> </table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	<b>HEALTH</b>	<b>2*</b>	<b>FLAMMABILITY</b>	<b>4</b>	<b>PHYSICAL HAZARD</b>	<b>0</b>
<b>HEALTH</b>	<b>2*</b>						
<b>FLAMMABILITY</b>	<b>4</b>						
<b>PHYSICAL HAZARD</b>	<b>0</b>						

**NFPA Flammable and Combustible Liquids Classification**

Not applicable

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

- H225 Highly flammable liquid and vapor.
- H226 Flammable liquid and vapor.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H361 Suspected of damaging fertility or the unborn child.
- 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 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).

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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