Conforms to ANSI Z400.1-2004 Standard (United States, Canada, Mexico).

Material Safety Data Sheet

DBU

1 . Product and company identification

Common name : **DBU**

Material uses : Not available.

Supplier/Manufacturer : San Leandro Color
555 Est 14 th Street
San Leandro, CA
USA, 94577

In case of emergency : CHEMTREC, U.S. : (800) 424-9300 International: (703) 527-3887

MSDS authored by: : Kemika XXI Inc. + 1-450-435-7475 11/15/2006

2 . Hazards identification

Physical state : Liquid. (Aerosol.)

Odor : Solvent. (Strong.)

Hazard status : This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada and the NOM-018-STPS-2000 in Mexico.

Emergency overview : WARNING !

EXTREMELY FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FIRE.
CONTENTS UNDER PRESSURE.
CANCER HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
BIRTH DEFECT HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE BIRTH DEFECT.
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LUNGS, LIVER, PERIPHERAL NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.

Do not ingest. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure. Avoid exposure during pregnancy.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes : Irritating to eyes.

Skin : May be harmful if absorbed through skin. Irritating to skin. May cause sensitization by skin contact.

Inhalation : Irritating to respiratory system.

Ingestion : May be harmful if swallowed.

Potential chronic health effects : Carcinogenic effects: Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Toluene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [n-Butyl acetate]. Classified 2B (Possible for humans.) by IARC [Titanium dioxide]. Classified None. by NIOSH [Titanium dioxide]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Titanium dioxide]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Toluene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Xylene]. Classified A4 (Not classifiable for humans or

animals.) by ACGIH [Ethyl acetate]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Acetone]. Classified None. by OSHA [Isopropyl alcohol]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Isopropyl alcohol]. Classified A3 (Proven for animals.) by ACGIH [Petroleum Ether]. Classified 2 (Suspected for humans.) by European Union [Petroleum Ether]. Classified A3 (Proven for animals.) by ACGIH, 2B (Possible for humans.) by IARC [Ethylbenzene]. Classified None. by NIOSH [Ethylbenzene]. Classified + (Proven.) by NIOSH [Carbon Black]. Classified 2B (Possible for humans.) by IARC [Carbon Black]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Carbon Black]. Classified 3 (Not classifiable for humans.) by IARC [2-Ethylhexyl acrylate].
Mutagenic effects: Classified None. for humans [Isopropyl alcohol].
Teratogenic effects: Not available.

Medical conditions aggravated by over-exposure : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to the substance can produce target organ damage.

See toxicological information (section 11)

3 . Composition/information on ingredients

United States

Name	CAS number	%
Difluoroethane	75-37-6	30 - 60
Toluene	108-88-3	30 - 60
n-Butyl acetate	123-86-4	10 - 30
Titanium dioxide	13463-67-7	10 - 30
2-Methoxy-1-methylethyl acetate	108-65-6	10 - 30
Aluminum	7429-90-5	5 - 10
Methyl ethyl ketone	78-93-3	5 - 10
Toluene	108-88-3	5 - 10
Graphite synthetic	7782-42-5	1 - 5
Xylene	1330-20-7	1 - 5
Ethyl acetate	141-78-6	1 - 5
Acetone	67-64-1	1 - 5
Naphtha (Petroleum), Hydrotreated Heavy	64742-48-9	1 - 5
Ethylbenzene	100-41-4	0.5 - 1
Carbon Black	1333-86-4	0.5 - 1

Canada

Name	CAS number	%
Difluoroethane	75-37-6	30 - 60
Toluene	108-88-3	30 - 60
n-Butyl acetate	123-86-4	10 - 30
Titanium dioxide	13463-67-7	10 - 30
2-Methoxy-1-methylethyl acetate	108-65-6	10 - 30
Aluminum	7429-90-5	5 - 10
Methyl ethyl ketone	78-93-3	5 - 10
Toluene	108-88-3	5 - 10
Graphite synthetic	7782-42-5	1 - 5
Xylene	1330-20-7	1 - 5
Ethyl acetate	141-78-6	1 - 5
Acetone	67-64-1	1 - 5
Naphtha (Petroleum), Hydrotreated Heavy	64742-48-9	1 - 5
Ethylbenzene	100-41-4	0.5 - 1
Carbon Black	1333-86-4	0.5 - 1
1,2,4-Trimethylbenzene	95-63-6	0.5 - 1

Mexico

Name	UN number	IDLH	Classification H	F	R	Special	CAS number	%
Difluoroethane	UN1030	-	1	4	0		75-37-6	30 - 60
Toluene	UN1294	500 ppm	2	3	0		108-88-3	30 - 60
n-Butyl acetate	UN1123	1700 ppm	1	3	0		123-86-4	10 - 30
Titanium dioxide	Not regulated.	5000 mg/m^3	0	0	0		13463-67-7	10 - 30
2-Methoxy-1-methylethyl acetate	UN1993	-	1	1	0		108-65-6	10 - 30
Aluminum	UN1309	-	0	2	0		7429-90-5	5 - 10
Methyl ethyl ketone	UN1193	3000 ppm	1	3	0		78-93-3	5 - 10
Toluene	UN1294	500 ppm	2	3	0		108-88-3	5 - 10
Graphite synthetic	Not regulated.	1250 mg/m^3	1	1	0		7782-42-5	1 - 5
Xylene	UN1307	900 ppm	2	3	0		1330-20-7	1 - 5
Ethyl acetate	UN1173	2000 ppm	1	3	0		141-78-6	1 - 5
Acetone	UN1090	2500 ppm	2	3	0		67-64-1	1 - 5
Naphtha (Petroleum), Hydrotreated Heavy	UN1268	-	0	1	0		64742-48-9	1 - 5

4 . First aid measures

Eye contact : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention immediately.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Notes to physician : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

Flammability of the product : Flammable.

Products of combustion : These products are carbon oxides, halogenated compounds, hydrogen fluoride. Some metallic oxides.

Extinguishing media

Suitable : Use dry chemical, carbon dioxide, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards : Flammable liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

Personal precautions : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilled material.

Environmental precautions : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7 . Handling and storage

Handling : Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.

Storage : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8 . Exposure controls/personal protection

United States

Product name	Exposure limits
Difluoroethane	**AIHA WEEL (United States, 1/2004).** TWA: 1000 ppm 8 hour(s). Form: All forms
Toluene	**ACGIH TLV (United States, 1/2005). Skin** TWA: 188 mg/m^3 8 hour(s). Form: All forms. TWA: 50 ppm 8 hour(s). Form: All forms. **NIOSH REL (United States, 12/2001).** STEL: 560 mg/m^3 15 minute(s). Form: All forms. STEL: 150 ppm 15 minute(s). Form: All forms. TWA: 375 mg/m^3 10 hour(s). Form: All forms. TWA: 100 ppm 10 hour(s). Form: All forms. **OSHA PEL Z2 (United States, 8/1997).** AMP: 500 ppm 10 minute(s). Form: All forms. TWA: 200 ppm 8 hour(s). Form: All forms.
n-Butyl acetate	**ACGIH TLV (United States, 1/2005).** STEL: 200 ppm 15 minute(s). Form: All forms. TWA: 150 ppm 8 hour(s). Form: All forms. **NIOSH REL (United States, 12/2001).** STEL: 950 mg/m^3 15 minute(s). Form: All forms. STEL: 200 ppm 15 minute(s). Form: All forms. TWA: 710 mg/m^3 10 hour(s). Form: All forms. TWA: 150 ppm 10 hour(s). Form: All forms. **OSHA PEL (United States, 8/1997).** TWA: 710 mg/m^3 8 hour(s). Form: All forms. TWA: 150 ppm 8 hour(s). Form: All forms.
Titanium dioxide	**ACGIH TLV (United States, 1/2005).** TWA: 10 mg/m^3 8 hour(s). Form: All forms. **OSHA PEL (United States, 8/1997).** TWA: 15 mg/m^3 8 hour(s). Form: Total dust
2-Methoxy-1-methylethyl acetate	**AIHA WEEL (United States, 1/2004).** TWA: 100 ppm 8 hour(s). Form: All forms. TWA: 50 ppm 8 hour(s). Form: All forms
Aluminum	**ACGIH TLV (United States, 1/2005).** TWA: 5 mg/m^3 8 hour(s). Form: All forms. TWA: 10 mg/m^3 8 hour(s). Form: Dust **NIOSH REL (United States, 12/2001).** TWA: 5 mg/m^3 10 hour(s). Form: All forms. TWA: 5 mg/m^3 10 hour(s). Form: Respirable fraction

	TWA: 10 mg/m³ 10 hour(s). Form: Total
	OSHA PEL (United States, 8/1997).
	TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction
	TWA: 15 mg/m³ 8 hour(s). Form: Total dust
Methyl ethyl ketone	**ACGIH TLV (United States, 1/2005).**
	STEL: 885 mg/m³ 15 minute(s). Form: All forms.
	STEL: 300 ppm 15 minute(s). Form: All forms.
	TWA: 590 mg/m³ 8 hour(s). Form: All forms.
	TWA: 200 ppm 8 hour(s). Form: All forms.
	NIOSH REL (United States, 12/2001).
	STEL: 885 mg/m³ 15 minute(s). Form: All forms.
	STEL: 300 ppm 15 minute(s). Form: All forms.
	TWA: 590 mg/m³ 10 hour(s). Form: All forms.
	TWA: 200 ppm 10 hour(s). Form: All forms.
	OSHA PEL (United States, 8/1997).
	TWA: 590 mg/m³ 8 hour(s). Form: All forms.
	TWA: 200 ppm 8 hour(s). Form: All forms.
Toluene	**ACGIH TLV (United States, 1/2005). Skin**
	TWA: 188 mg/m³ 8 hour(s). Form: All forms.
	TWA: 50 ppm 8 hour(s). Form: All forms.
	NIOSH REL (United States, 12/2001).
	STEL: 560 mg/m³ 15 minute(s). Form: All forms.
	STEL: 150 ppm 15 minute(s). Form: All forms.
	TWA: 375 mg/m³ 10 hour(s). Form: All forms.
	TWA: 100 ppm 10 hour(s). Form: All forms.
	OSHA PEL Z2 (United States, 8/1997).
	AMP: 500 ppm 10 minute(s). Form: All forms.
	TWA: 200 ppm 8 hour(s). Form: All forms.
Graphite synthetic	**ACGIH TLV (United States, 1/2005).**
	TWA: 2 mg/m³ 8 hour(s). Form: Dust
	NIOSH REL (United States, 12/2001).
	TWA: 2.5 mg/m³ 10 hour(s). Form: Respirable fraction
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 2.5 mg/m³ 8 hour(s). Form: Respirable dust
Xylene	**ACGIH TLV (United States, 1/2005).**
	STEL: 651 mg/m³ 15 minute(s). Form: All forms.
	STEL: 150 ppm 15 minute(s). Form: All forms.
	TWA: 434 mg/m³ 8 hour(s). Form: All forms.
	TWA: 100 ppm 8 hour(s). Form: All forms.
	OSHA PEL (United States, 8/1997).
	TWA: 435 mg/m³ 8 hour(s). Form: All forms.
	TWA: 100 ppm 8 hour(s). Form: All forms.
Ethyl acetate	**ACGIH TLV (United States, 1/2005).**
	TWA: 400 ppm 8 hour(s). Form: All forms.
	TWA: 1440 mg/m³ 8 hour(s). Form: All forms.
	NIOSH REL (United States, 12/2001).
	TWA: 1400 mg/m³ 10 hour(s). Form: All forms.
	TWA: 400 ppm 10 hour(s). Form: All forms.
	OSHA PEL (United States, 8/1997).
	TWA: 1400 mg/m³ 8 hour(s). Form: All forms.
	TWA: 400 ppm 8 hour(s). Form: All forms.
Acetone	**ACGIH TLV (United States, 1/2005).**
	STEL: 1782 mg/m³ 15 minute(s). Form: All forms.
	STEL: 750 ppm 15 minute(s). Form: All forms.
	TWA: 1188 mg/m³ 8 hour(s). Form: All forms.
	TWA: 500 ppm 8 hour(s). Form: All forms.
	NIOSH REL (United States, 12/2001).
	TWA: 590 mg/m³ 10 hour(s). Form: All forms.
	TWA: 250 ppm 10 hour(s). Form: All forms.
	OSHA PEL (United States, 8/1997).
	TWA: 2400 mg/m³ 8 hour(s). Form: All forms.

	TWA: 1000 ppm 8 hour(s). Form: All forms.
Naphtha (Petroleum), Hydrotreated Heavy	**ACGIH TLV (United States).** TWA: 300 ppm 8 hour(s).
Ethylbenzene	**ACGIH TLV (United States, 1/2005).** STEL: 125 ppm 15 minute(s). Form: All forms. TWA: 100 ppm 8 hour(s). Form: All forms. **NIOSH REL (United States, 12/2001).** STEL: 545 mg/m³ 15 minute(s). Form: All forms. STEL: 125 ppm 15 minute(s). Form: All forms. TWA: 435 mg/m³ 10 hour(s). Form: All forms. TWA: 100 ppm 10 hour(s). Form: All forms. **OSHA PEL (United States, 8/1997).** TWA: 435 mg/m³ 8 hour(s). Form: All forms. TWA: 100 ppm 8 hour(s). Form: All forms.
Carbon Black	**ACGIH TLV (United States, 1/2005).** TWA: 3.5 mg/m³ 8 hour(s). Form: All forms. **NIOSH REL (United States, 12/2001).** TWA: 3.5 mg/m³ 10 hour(s). Form: All forms. **OSHA PEL (United States, 8/1997).** TWA: 3.5 mg/m³ 8 hour(s). Form: All forms.

Canada

Product name	Exposure limits
Toluene	**ACGIH TLV (United States, 1/2005). Skin** TWA: 188 mg/m³ 8 hour(s). Form: All forms. TWA: 50 ppm 8 hour(s). Form: All forms.
n-Butyl acetate	**ACGIH TLV (United States, 1/2005).** STEL: 200 ppm 15 minute(s). Form: All forms. TWA: 150 ppm 8 hour(s). Form: All forms.
Titanium dioxide	**ACGIH TLV (United States, 1/2005).** TWA: 10 mg/m³ 8 hour(s). Form: All forms.
Aluminum	**ACGIH TLV (United States, 1/2005).** TWA: 5 mg/m³ 8 hour(s). Form: All forms. TWA: 10 mg/m³ 8 hour(s). Form: Dust
Methyl ethyl ketone	**ACGIH TLV (United States, 1/2005).** STEL: 885 mg/m³ 15 minute(s). Form: All forms. STEL: 300 ppm 15 minute(s). Form: All forms. TWA: 590 mg/m³ 8 hour(s). Form: All forms. TWA: 200 ppm 8 hour(s). Form: All forms.
Toluene	**ACGIH TLV (United States, 1/2005). Skin** TWA: 188 mg/m³ 8 hour(s). Form: All forms. TWA: 50 ppm 8 hour(s). Form: All forms.
Graphite synthetic	**ACGIH TLV (United States, 1/2005).** TWA: 2 mg/m³ 8 hour(s). Form: Dust
Xylene	**ACGIH TLV (United States, 1/2005).** STEL: 651 mg/m³ 15 minute(s). Form: All forms. STEL: 150 ppm 15 minute(s). Form: All forms. TWA: 434 mg/m³ 8 hour(s). Form: All forms. TWA: 100 ppm 8 hour(s). Form: All forms.
Ethyl acetate	**ACGIH TLV (Canada, 1/2005).** TWA: 1440 mg/m³ 8 hour(s). Form: All forms. TWA: 400 ppm 8 hour(s). Form: All forms.
Acetone	**ACGIH TLV (United States, 1/2005).** STEL: 1782 mg/m³ 15 minute(s). Form: All forms. STEL: 750 ppm 15 minute(s). Form: All forms. TWA: 1188 mg/m³ 8 hour(s). Form: All forms. TWA: 500 ppm 8 hour(s). Form: All forms.
Naphtha (Petroleum), Hydrotreated Heavy	**ACGIH TLV (United States).**

	TWA: 300 ppm 8 hour(s).
Ethylbenzene	**ACGIH TLV (United States, 1/2005).** STEL: 125 ppm 15 minute(s). Form: All forms. TWA: 100 ppm 8 hour(s). Form: All forms.
Carbon Black	**ACGIH TLV (United States, 1/2005).** TWA: 3.5 mg/m³ 8 hour(s). Form: All forms.
1,2,4-Trimethylbenzene	**ACGIH TLV (United States, 1/2005).** TWA: 123 mg/m³ 8 hour(s). Form: All forms. TWA: 25 ppm 8 hour(s). Form: All forms.

Mexico

Product name	Exposure limits
Toluene	**NOM-010-STPS (Mexico, 9/2000). Skin** CPT: 188 mg/m³ 8 hour(s). Form: All forms. CPT: 50 ppm 8 hour(s). Form: All forms.
n-Butyl acetate	**NOM-010-STPS (Mexico, 9/2000).** CCT: 950 mg/m³ 15 minute(s). Form: All forms. CCT: 200 ppm 15 minute(s). Form: All forms. CPT: 710 mg/m³ 8 hour(s). Form: All forms. CPT: 150 ppm 8 hour(s). Form: All forms.
Titanium dioxide	**NOM-010-STPS (Mexico, 9/2000).** CCT: 20 mg/m³ 15 minute(s). Form: All forms. CPT: 10 mg/m³ 8 hour(s). Form: All forms.
Aluminum	**NOM-010-STPS (Mexico, 9/2000).** CPT: 5 mg/m³ 8 hour(s). Form: All forms. CPT: 5 mg/m³ 8 hour(s). Form: Powder
Methyl ethyl ketone	**NOM-010-STPS (Mexico, 9/2000).** CCT: 885 mg/m³ 15 minute(s). Form: All forms. CCT: 300 ppm 15 minute(s). Form: All forms. CPT: 590 mg/m³ 8 hour(s). Form: All forms. CPT: 200 ppm 8 hour(s). Form: All forms.
Toluene	**NOM-010-STPS (Mexico, 9/2000). Skin** CPT: 188 mg/m³ 8 hour(s). Form: All forms. CPT: 50 ppm 8 hour(s). Form: All forms.
Graphite synthetic	**NOM-010-STPS (Mexico, 9/2000).** CPT: 2 mg/m³ 8 hour(s). Form: Powder
Xylene	**NOM-010-STPS (Mexico, 9/2000).** CCT: 655 mg/m³ 15 minute(s). Form: All forms. CCT: 150 ppm 15 minute(s). Form: All forms. CPT: 435 mg/m³ 8 hour(s). Form: All forms. CPT: 100 ppm 8 hour(s). Form: All forms.
Ethyl acetate	**NOM-010-STPS (Mexico, 9/2000).** CPT: 1400 mg/m³ 8 hour(s). Form: All forms CPT: 400 ppm 8 hour(s). Form: All forms
Acetone	**NOM-010-STPS (Mexico, 9/2000).** CCT: 3000 mg/m³ 15 minute(s). Form: All forms. CCT: 1260 ppm 15 minute(s). Form: All forms. CPT: 2400 mg/m³ 8 hour(s). Form: All forms. CPT: 1000 ppm 8 hour(s). Form: All forms
Naphtha (Petroleum), Hydrotreated Heavy	**ACGIH TLV (United States).** TWA: 300 ppm 8 hour(s).

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Personal protection

Eyes : Splash goggles.

Synthetic apron.

Vapor respirator.

Nitrile gloves.

HMIS Code/Personal protective equipment : J

Personal protection in case of a large spill : Safety glasse or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved sel breathing apparatus or equivalent and full protective gear.

Hygiene measures : Wash hands nd face thoroughly after handling compounds and before eating, smoking ar avatory and at the end of the day. Follow good industrial hygiene practice.

11 . Toxicological information

Toxicity data

Product/ingredient name	Test	Result	Route	Species
Toluene	LD50	636 mg/kg	Oral	Rat
	LD50	1221 mg/kg	Dermal	Rabbit
n-Butyl acetate	LD50	10768 mg/kg	Oral	Rat
	LD50	3200 mg/kg	Oral	Rabbit
	LD50	4300 mg/kg	Oral	Mammal
	LD50	>17600 mg/kg	Dermal	Rabbit
2-Methoxy-1-methylethyl acetate	LD50	8532 mg/kg	Oral	Rat
Methyl ethyl ketone	LD50	2737 mg/kg	Oral	Rat
	LD50	4050 mg/kg	Oral	Mouse
	LD50	6480 mg/kg	Dermal	Rabbit
Toluene	LD50	636 mg/kg	Oral	Rat
	LD50	1221 mg/kg	Dermal	Rabbit
Xylene	LD50	4300 mg/kg	Oral	Rat
	LD50	2119 mg/kg	Oral	Mouse
	LD50	>1700 mg/kg	Dermal	Rabbit
	LC50	6350 ppm (4 hour(s))	Inhalation	Rat
Ethyl acetate	LD50	5620 mg/kg	Oral	Rat
	LD50	4935 mg/kg	Oral	Rabbit
	LD50	4100 mg/kg	Oral	Mouse
	LD50	>18000 mg/kg	Dermal	Rabbit
	LC50	19600 ppm (4 hour(s))	Inhalation	Rat
	LC50	10600 ppm (4 hour(s))	Inhalation	Mouse
Acetone	LD50	5800 mg/kg	Oral	Rat
	LD50	5340 mg/kg	Oral	Rabbit
Ethylbenzene	LD50	3500 mg/kg	Oral	Rat
Carbon Black	LD50	>15400 mg/kg	Oral	Rat

Acute Effects

Eyes : Irritating to eyes.

Skin : May be harmful if absorbed through skin. Irritating to skin. May cause sensitization by skin contact.

Inhalation : Irritating to respiratory system.

Ingestion : May be harmful if swallowed.

Potential chronic health effects : Carcinogenic effects: Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Toluene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [n-Butyl acetate]. Classified 2B (Possible for humans.) by IARC [Titanium dioxide]. Classified None. by NIOSH [Titanium dioxide]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Titanium dioxide]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Toluene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Xylene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Ethyl acetate]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Acetone]. Classified None. by OSHA [Isopropyl alcohol]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Isopropyl alcohol]. Classified A3 (Proven for animals.) by ACGIH [Petroleum Ether]. Classified 2 (Suspected for humans.) by European Union [Petroleum Ether]. Classified A3 (Proven for animals.) by ACGIH, 2B (Possible for humans.) by IARC [Ethylbenzene]. Classified None. by NIOSH [Ethylbenzene]. Classified + (Proven.) by NIOSH [Carbon Black]. Classified 2B (Possible for humans.) by IARC [Carbon Black]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Carbon Black]. Classified 3 (Not classifiable for humans.) by IARC [2-Ethylhexyl acrylate]. Mutagenic effects: Classified None. for humans [Isopropyl alcohol]. Teratogenic effects: Not available.

Target organs : Contains material which causes damage to the following organs: blood, kidneys, lungs, liver, peripheral nervous system, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Special remarks on chronic effects on humans : Embryotoxic and/or fetotoxic in animals. (Xylene)

12 . Ecological information

Ecotoxicity data

Product/ingredient name	Species	Period	Result
Toluene	Daphnia magna (EC50)	48 hour(s)	6 mg/l
	Daphnia magna (EC50)	48 hour(s)	6.56 mg/l
	Oncorhynchus mykiss (EC50)	48 hour(s)	6.78 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	5.8 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	6.78 mg/l
	Pimephales promelas (LC50)	96 hour(s)	12.6 mg/l
n-Butyl acetate	Pimephales promelas (EC50)	48 hour(s)	19 mg/l
	Pimephales promelas (LC50)	96 hour(s)	18 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	100 mg/l
Titanium dioxide	Daphnia magna (EC50)	48 hour(s)	>1000 mg/l
Aluminum	Oncorhynchus mykiss (LC50)	96 hour(s)	0.12 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.16 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.31 mg/l
Methyl ethyl ketone	Daphnia magna (EC50)	48 hour(s)	5091 mg/l
	Pimephales promelas (LC50)	96 hour(s)	3220 mg/l
Toluene	Daphnia magna (EC50)	48 hour(s)	6 mg/l
	Daphnia magna (EC50)	48 hour(s)	6.56 mg/l
	Oncorhynchus mykiss (EC50)	48 hour(s)	6.78 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	5.8 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	6.78 mg/l
	Pimephales promelas (LC50)	96 hour(s)	12.6 mg/l
Xylene	Oncorhynchus mykiss (LC50)	96 hour(s)	3.3 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	8.2 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	8.6 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	12 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	13.3 mg/l
	Pimephales promelas (LC50)	96 hour(s)	13.4 mg/l
Ethyl acetate	Pimephales promelas (EC50)	48 hour(s)	260 mg/l
	Scenedesmus subspicatus (EC50)	48 hour(s)	3300 mg/l
	Scenedesmus subspicatus (EC50)	48 hour(s)	5600 mg/l
	Pimephales promelas (LC50)	96 hour(s)	230 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	425.3 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	484 mg/l
Acetone	Daphnia magna (EC50)	48 hour(s)	23.5 mg/l
	Pimephales promelas (EC50)	48 hour(s)	8990 mg/l
	Daphnia magna (EC50)	48 hour(s)	13500 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	5540 mg/l
Ethylbenzene	Daphnia magna (EC50)	48 hour(s)	2.93 mg/l
	Daphnia magna (EC50)	48 hour(s)	2.97 mg/l
	Selenastrum capricornutum (EC50)	48 hour(s)	7.2 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	4.2 mg/l
	Pimephales promelas (LC50)	96 hour(s)	9.09 mg/l
	Poecilia reticulata (LC50)	96 hour(s)	9.6 mg/l

Environmental precautions : No known significant effects or critical hazards.

Products of degradation : These products are carbon oxides and water, halogenated compounds. Some metallic oxides.

Toxicity of the products of biodegradation : The products of degradation are as toxic as the product itself.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

14 . Transport information

NAERG : 126

Regulatory information	Proper shipping name	Class	UN number	PG	Label
UN / IMDG / IATA Classification	AEROSOLS, FLAMMABLE, N.O.S. (each not exceeding 1 L capacity) (Difluoroethane, Toluene)	2.1	UN1950	II	
DOT Classification	AEROSOLS, FLAMMABLE, N.O.S. (each not exceeding 1 L capacity) (Difluoroethane, Toluene)	2.1	UN1950	II	
TDG Classification	AEROSOLS, FLAMMABLE, N.O.S. (each not exceeding 1 L capacity) (Difluoroethane, Toluene)	2.1	UN1950	II	

15 . Regulatory information

United States

HCS Classification : Flammable aerosol
Pressure hazard
Irritating material
Sensitizing material
Carcinogen
Target organ effects

U.S. Federal regulations : TSCA 4(a) final test rules: n-Butyl acetate; 4-Methylpentan-2-One
TSCA 8(a) PAIR: 2-Methoxy-1-methylethyl acetate
TSCA 8(b) inventory: All components listed.
TSCA 12(b) one-time export: n-Butyl acetate; 4-Methylpentan-2-One

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Difluoroethane; Toluene; n-Butyl acetate; Titanium dioxide; 2-Methoxy-1-methylethyl acetate; Aluminum; Methyl ethyl ketone; Toluene; Graphite synthetic; Xylene; Ethyl acetate; Acetone
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Difluoroethane: Fire hazard, Sudden release of pressure, Delayed (chronic) health hazard; Toluene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; n-Butyl acetate: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Titanium dioxide: Delayed (chronic) health hazard; 2-Methoxy-1-methylethyl acetate: Fire hazard; Aluminum: Fire hazard, reactive; Methyl ethyl ketone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Toluene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Graphite synthetic: Immediate (acute) health hazard; Xylene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Ethyl acetate: Fire hazard, Immediate

(acute) health hazard, Delayed (chronic) health hazard; Acetone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: Toluene; Toluene; Ethylbenzene

Clean Water Act (CWA) 311: Toluene; n-Butyl acetate; Toluene; Xylene; Ethylbenzene

Clean Air Act (CAA) 112 accidental release prevention: Difluoroethane

Clean Air Act (CAA) 112 regulated flammable substances: Difluoroethane

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

		Product name	CAS number	Concentration
Form R - Reporting requirements	:	Toluene	108-88-3	30 - 60
		Aluminum	7429-90-5	5 - 10
		Methyl ethyl ketone	78-93-3	5 - 10
		Toluene	108-88-3	5 - 10
		Xylene	1330-20-7	1 - 5
		Ethylbenzene	100-41-4	0.5 - 1
Supplier notification	:	Toluene	108-88-3	30 - 60
		Aluminum	7429-90-5	5 - 10
		Methyl ethyl ketone	78-93-3	5 - 10
		Toluene	108-88-3	5 - 10
		Xylene	1330-20-7	1 - 5
		Ethylbenzene	100-41-4	0.5 - 1

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations : Pennsylvania RTK: Toluene: (environmental hazard, generic environmental hazard); n-Butyl acetate: (environmental hazard, generic environmental hazard); Titanium dioxide: (generic environmental hazard); Aluminum: (environmental hazard, generic environmental hazard); Methyl ethyl ketone: (environmental hazard, generic environmental hazard); Toluene: (environmental hazard, generic environmental hazard); Graphite synthetic: (generic environmental hazard); Xylene: (environmental hazard, generic environmental hazard); Ethyl acetate: (environmental hazard, generic environmental hazard); Acetone: (environmental hazard, generic environmental hazard); Isopropyl alcohol: (environmental hazard, generic environmental hazard); Petroleum Ether: (generic environmental hazard); Stoddard Solvent: (generic environmental hazard) ; Ethylbenzene: (environmental hazard, generic environmental hazard); Carbon Black: (generic environmental hazard); 1,2,4-Trimethylbenzene: (environmental hazard, generic environmental hazard); 2-Ethylhexyl acrylate: (generic environmental hazard)
Minnesota: 1,2,4-Trimethylbenzene
Massachusetts RTK: Difluoroethane; Toluene; n-Butyl acetate; Titanium dioxide; Aluminum; Methyl ethyl ketone; Toluene; Graphite synthetic; Xylene; Ethyl acetate; Acetone; Isopropyl alcohol; Stoddard Solvent; Ethylbenzene; Carbon Black; 1,2,4-Trimethylbenzene; 2-Ethylhexyl acrylate
New Jersey: Difluoroethane; Toluene; n-Butyl acetate; Titanium dioxide; Aluminum; Methyl ethyl ketone; Toluene; Xylene; Ethyl acetate; Acetone; Isopropyl alcohol; Petroleum Ether; Stoddard Solvent; Ethylbenzene; Carbon Black; 1,2,4-Trimethylbenzene

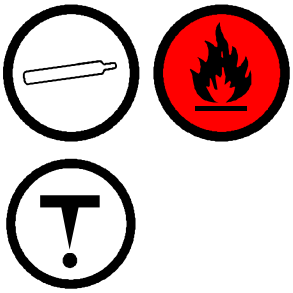
WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)
Toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)

Ethylbenzene	Yes.	No.	No.	No.
Carbon Black	Yes.	No.	No.	No.

Canada

WHMIS (Canada) : Class A: Compressed gas.
Class B-5: Flammable aerosol.
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

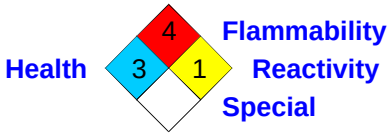


DSL : All components listed.

This product has been classified in accordance with the hazard criteria of the Canadian CPR, the United States OSHA and the Mexican NOM -018-STPS-2000. This MSDS contains all the information required by the CPR, OSHA, the American National Standard Institute (ANSI) Z400.1 and NOM -018-STPS-2000.

Mexico

Classification :



HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements (U.S.A.) : EXTREMELY FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FIRE.
CONTENTS UNDER PRESSURE.
CANCER HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
BIRTH DEFECT HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE BIRTH DEFECT.
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LUNGS, LIVER, PERIPHERAL NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.

Hazardous Material Information System (U.S.A.) :

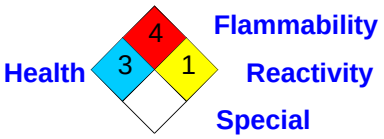
HMIS RATING

Health	*	3
Fire hazard		4
Physical Hazard		1
Personal protection		J

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal
See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

Date of issue : 11/15/2006

Version : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.