



DAKOTA GASIFICATION COMPANY

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SAFETY DATA SHEET



RESPONSIBLE CARE
OUR COMMITMENT TO SUSTAINABILITY

Section 1: Identification

Product identifier

Product Name • **Caustic Washed Naphtha**

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

Recommended use • Primarily in blending with gasoline, resins, solvent for asphalt, road tars, pitches, cleaning compounds, etc.

Details of the supplier of the safety data sheet

Manufacturer • Dakota Gasification
420 County Road 26
Beulah, ND 58523-9400
United States
www.dakotagas.com

Telephone (General) • 701-873-2100

Emergency telephone number

Manufacturer • (701) 873-6600
• 800-424-9300 - CHEMTREC

Section 2: Hazard Identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 • Flammable Liquids 2 - H225
Acute Toxicity Oral 4 - H302
Aspiration 1 - H304
Skin Irritation 2 - H315
Eye Irritation 2 - H319
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
Germ Cell Mutagenicity 1B - H340
Carcinogenicity 1A - H350
Reproductive Toxicity 2 - H361
Specific Target Organ Toxicity Repeated Exposure 1 - H372

Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Highly flammable liquid and vapour - H225
 - Harmful if swallowed - H302
 - May be fatal if swallowed and enters airways - H304
 - Causes skin irritation - H315
 - Causes serious eye irritation - H319
 - May cause drowsiness or dizziness - H336
 - May cause genetic defects. - H340
 - May cause cancer. - H350
 - Suspected of damaging fertility or the unborn child. - H361
 - Causes damage to organs - Blood/Bone Marrow/CNS through prolonged or repeated exposure - H372
- Precautionary statements**
- Prevention**
- Obtain special instructions before use. - P201
 - Do not handle until all safety precautions have been read and understood. - P202
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210
 - Keep container tightly closed. - P233
 - Ground and/or bond container and receiving equipment. - P240
 - Use explosion-proof electrical/ventilating/lighting/equipment. - P241
 - Use only non-sparking tools. - P242
 - Take precautionary measures against static discharge. - P243
 - Do not breathe mist/vapours/spray. - P260
 - Wash thoroughly after handling. - P264
 - Do not eat, drink or smoke when using this product. - P270
 - Use only outdoors or in a well-ventilated area. - P271
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
- Response**
- In case of fire: Use appropriate media for extinction. - P370+P378
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
 - Call a POISON CENTER or doctor/physician if you feel unwell. - P312
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
 - If skin irritation occurs: Get medical advice/attention. - P332+P313
 - Specific treatment, see supplemental first aid information. - P321
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
 - If eye irritation persists: Get medical advice/attention. - P337+P313
 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. - P301+P310
 - Rinse mouth. - P330
 - Do NOT induce vomiting. - P331
 - IF exposed or concerned: Get medical advice/attention. - P308+P313
 - Get medical advice/attention if you feel unwell. - P314
- Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed. - P403+P233
 - Keep cool. - P235
 - Store locked up. - P405
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501
- Supplemental information**
- 13.1 percent of this product consists of an ingredient of unknown toxicity.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

Classification of the substance or mixture

- WHMIS** • Flammable Liquids - B2
Other Toxic Effects - D2A
Other Toxic Effects - D2B

Label elements

WHMIS



- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

Other hazards

- WHMIS** • In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Benzene	CAS:71-43-2	44%	Ingestion/Oral-Rat LD50 • 930 mg/kg Inhalation-Rat LC50 • 10000 ppm 7 Hour(s) Skin-Rabbit LD50 • >9400 µL/kg	OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2; Skin Irrit. 2; Muta. 1B; Carc. 1A; Asp. Tox. 1; STOT RE 1 (Blood, Bone Marrow); Repr. 2; STOT SE 3: Narc.; Acute Tox. 4 (oral)
Toluene	CAS:108-88-3	17%	Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	OSHA HCS 2012: Flam. Liq. 2; Acute Tox. 4 (oral); Skin Irrit. 2; Eye Irrit. 2; Muta. 2; Repr. 2; STOT SE 3: Narc.; STOT RE 1 (CNS); Asp. Tox. 1
Heptane	CAS:142-82-5	10%	Inhalation-Rat LC50 • 103 g/m ³ 4 Hour(s)	OSHA HCS 2012: Flam. Liq. 2; STOT SE 3: Narc.; Asp. Tox. 1
Alkenes	CAS:592-41-6	9%	Inhalation-Rat LC50 • 32000 ppm 4 Hour(s)	OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2; STOT SE 3: Narc.; Asp. Tox. 1; Skin Irrit. 2

Acetone	CAS:67-64-1	2% TO 8%	Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour(s) Ingestion/Oral-Rat LD50 • 5800 mg/kg	OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2; STOT SE 3: Narc.
2-Butanone	CAS:78-93-3	2% TO 5%	Ingestion/Oral-Rat LD50 • 2737 mg/kg Inhalation-Rat LC50 • 23500 mg/m ³ 8 Hour(s) Skin-Rabbit LD50 • 6480 mg/kg	OSHA HCS 2012: Flam. Liq. 2; Repr. 2; STOT SE 3: Narc.; Skin Irrit. 2; Eye Irrit. 2
Xylene	CAS:1330-20-7	3.1%	Ingestion/Oral-Rat LD50 • 4300 mg/kg Inhalation-Rat LC50 • 5000 ppm 4 Hour(s) Skin-Rabbit LD50 • >1700 mg/kg	OSHA HCS 2012: Flam. Liq. 3; STOT SE 3: Narc. & Resp. Irrit.; Eye Irrit. 2; Skin Irrit. 2; Repr. 2; Acute Tox. 4 (inhl)

Section 4: First-Aid Measures

Description of first aid measures

- Inhalation** • Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.
- Skin** • In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Wash skin with soap and water.
- Eye** • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- Ingestion** • Do NOT induce vomiting. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician** • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

- Suitable Extinguishing Media** • LARGE FIRES: Water spray, fog or alcohol-resistant foam.
SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.

- Unsuitable Extinguishing Media** • No data available

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards** • Containers may explode when heated.
Vapor explosion hazard indoors, outdoors or in sewers.
HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
Many liquids are lighter than water.
Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).

Runoff to sewer may create fire or explosion hazard.
Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
Vapors may form explosive mixtures with air.
Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

- No data available

Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions • CAUTION: Victim may be a source of contamination. Do not walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear appropriate personal protective equipment, avoid direct contact.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. A vapor suppressing foam may be used to reduce vapors. All equipment used when handling the product must be grounded. LARGE SPILLS: Dike far ahead of liquid spill for later disposal. LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Precautions for safe handling

Handling • Use only in well ventilated areas. Avoid contact with heat and ignition sources. Take precautionary measures against static charges. Use only non-sparking tools. All equipment used when handling the product must be grounded. Wear appropriate personal protective equipment, avoid direct contact. Avoid contact with skin, eyes, and clothing. Do not breathe mist, vapours, spray. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

Storage • Keep away from sources of ignition – No Smoking. Store in a tightly closed container. Store in a cool, dry, well-ventilated place.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Acetone (67-64-1)	TWAs	500 ppm TWA	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA
	STELs	750 ppm STEL	Not established	Not established
2-Butanone (78-93-3)	TWAs	200 ppm TWA	200 ppm TWA; 590 mg/m3 TWA	200 ppm TWA; 590 mg/m3 TWA
	STELs	300 ppm STEL	300 ppm STEL; 885 mg/m3 STEL	Not established
Xylene (1330-20-7)	TWAs	100 ppm TWA	Not established	100 ppm TWA; 435 mg/m3 TWA
	STELs	150 ppm STEL	Not established	Not established
Alkenes (592-41-6)	TWAs	50 ppm TWA	Not established	Not established
Heptane (142-82-5)	TWAs	400 ppm TWA (listed under Heptane, all isomers)	85 ppm TWA; 350 mg/m3 TWA	500 ppm TWA; 2000 mg/m3 TWA
	STELs	500 ppm STEL (listed under Heptane, all isomers)	Not established	Not established
	Ceilings	Not established	440 ppm Ceiling (15 min); 1800 mg/m3 Ceiling (15 min)	Not established
Toluene (108-88-3)	Ceilings	Not established	Not established	300 ppm Ceiling
	TWAs	20 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	200 ppm TWA
	STELs	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established
Benzene (71-43-2)	Ceilings	Not established	Not established	25 ppm Ceiling
	STELs	2.5 ppm STEL	1 ppm STEL	5 ppm STEL (see 29 CFR 1910.1028)
	TWAs	0.5 ppm TWA	0.1 ppm TWA	10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA

Exposure controls

Engineering Measures/Controls • Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof - electrical, ventilating and/or lighting equipment.

Personal Protective Equipment

Respiratory • In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face • Wear safety goggles.

Skin/Body • Wear appropriate gloves.

Environmental Exposure Controls • Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
 NIOSH = National Institute of Occupational Safety and Health
 OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures
 TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Yellow to straw colored liquid with a sweet, pungent, aromatic odor.
Color	Yellow to straw colored.	Odor	Aromatic odor, sweet, pungent.
Odor Threshold	1.5 to 4.5 ppm (Benzene)		
General Properties			
Boiling Point	120 F(48.8889 C)	Melting Point	-42 F(-41.1111 C)
Decomposition Temperature	No data available	pH	7
Specific Gravity/Relative Density	0.82 to 0.84 Water=1	Bulk Density	6.9 lbs/gal
Water Solubility	0.18 % (Benzene)	Viscosity	No data available
Volatility			
Vapor Pressure	4 psi @ 78 F(25.5556 C)	Vapor Density	3 Air=1
Evaporation Rate	> 1 n-Butyl Acetate = 1	Volatiles (Vol.)	100 %
Flammability			
Flash Point	12 F(-11.1111 C)	UEL	7.1 % (Benzene)
LEL	1.3 % (Benzene)	Autoignition	531 F(277.2222 C)
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Avoid contact with heat and ignition sources.

Incompatible materials

- Strong oxidizers, nitrates, chlorine, and bromine with iron.

Hazardous decomposition products

- Carbon monoxide.

Section 11 - Toxicological Information

Information on toxicological effects

Component Name	CAS	Data
Benzene (44%)	71-43-2	Acute Toxicity: orl-rat LD50:1800 mg/kg; ihl-rat TCLo:1 ppm/6H; Irritation: eye-rbt 2 mg/24H SEV; Mutagen: dlt-mus-ork 1 mg/kg; sce-mus-ihl 10 ppm/6H; Reproductive: ihl-rat TCLo:50 ppm/24H (7-14D preg); Tumorigen/Carcinogen: orl-rat TDLo:52 gm/kg/52W-I
Toluene (17%)	108-88-3	Acute Toxicity: orl-rat LD50:636 mg/kg; ihl-rat LC50:49 gm/m3/4H; ihl-rat TCLo:1000 mg/m3/4H; skn-rbt LD50:14100 uL/kg; Irritation: eye-rbt 2 mg/24H SEV; skn-rbt 500 mg MOD; Mutagen: mnt-mus-ork 200 mg/kg; sce-hmn-ihl 252 ug/L/19Y; Reproductive: ihl-rat TCLo:1500 mg/m3/24H (1-8D preg)
Xylene (3.1%)	1330-20-7	Acute Toxicity: orl-mam LD50:4300 mg/kg; orl-rat LD50:4300 mg/kg; ihl-rat LC50:5000 ppm/4H; Irritation: eye-rbt 5 mg/24H SEV; skn-rbt 500 mg/24H MOD; Reproductive: ihl-rat TCLo:50 mg/m3/6H (1-21D preg)
Alkenes (9%)	592-41-6	Acute Toxicity: ihl-rat LC50:32000 ppm/4H; Multi-dose Toxicity: orl-rat TDLo:43 gm/kg/43D-I
Acetone (2% TO 8%)	67-64-1	Acute Toxicity: ihl-rat LC50:50100 mg/m3/8H; Irritation: eye-rbt 20 mg SEV; skn-rbt 395 mg open MLD; Multi-dose Toxicity: ihl-hmn TCLo:100 mg/m3/6H/5D-I; Reproductive: ihl-rat TCLo:30 mg/m3 (1-13D preg)
2-Butanone (2% TO 5%)	78-93-3	Acute Toxicity: orl-rat LD50:2737 mg/kg; ihl-rat LC50:23500 mg/m3/8H; ihl-hmn TCLo:100 ppm/5M; ihl-mus TCLo:25000 mg/m3/2H; skn-rbt LD50:6480 mg/kg; Irritation: eye-rbt 80 mg; skn-rbt 500 mg/24H MOD; Reproductive: ihl-rat TCLo:1000 ppm/7H (6-15D preg)

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012•Acute Toxicity - Oral 4 - ATEmix (oral) = 1617.59 mg/kg
Aspiration Hazard	OSHA HCS 2012•Aspiration 1
Carcinogenicity	OSHA HCS 2012•Carcinogenicity 1A
Germ Cell Mutagenicity	OSHA HCS 2012•Germ Cell Mutagenicity 1B
Skin corrosion/Irritation	OSHA HCS 2012•Skin Irritation 2
Skin sensitization	OSHA HCS 2012•Data lacking
STOT-RE	OSHA HCS 2012•Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	OSHA HCS 2012•Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Toxicity for Reproduction	OSHA HCS 2012•Toxic to Reproduction 2
Respiratory sensitization	OSHA HCS 2012•Data lacking
Serious eye damage/Irritation	OSHA HCS 2012•Eye Irritation 2

Route(s) of entry/exposure • Inhalation, Skin, Eye, Ingestion

Potential Health Effects

Inhalation

Acute (Immediate) • May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed) • No data available.

Skin

Acute (Immediate) • Causes skin irritation.

Chronic (Delayed) • No data available.

Eye

Acute (Immediate) • Causes serious eye irritation.

Chronic (Delayed) • No data available.

Ingestion

Acute (Immediate) • Harmful if swallowed. Material may be aspirated into lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.

Chronic (Delayed) • No data available.

Other

Chronic (Delayed) • Prolonged or repeated exposure causes damage to the Blood, Bone Marrow, and Central Nervous System.

Mutagenic Effects • Animal tests for components have resulted in mutagenic effects.

Carcinogenic Effects • Benzene is considered to be a carcinogen by IARC, NTP, and OSHA. Repeated and prolonged exposure may cause cancer.

Carcinogenic Effects				
	CAS	OSHA	IARC	NTP
Benzene	71-43-2	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen

Key to abbreviations

LC = Lethal Concentration

SEV = Severe

LD = Lethal Dose

TC = Toxic Concentration

MLD = Mild

TD = Toxic Dose

MOD = Moderate

Reproductive Effects • Animal tests for components have shown adverse reproductive effects.

Section 12 - Ecological Information

Toxicity

- Material data lacking.

Persistence and degradability

- The most significant source for release of benzene to the environment is from the combustion of gasoline. Chemical degradation reactions, primarily the reaction with the hydroxy radical, limit the atmospheric residence time of benzene to only a few days and possibly only a few hours if the hydroxy radical is sufficiently high. Biodegradation, principally aerobic, is the most important environmental fate mechanism for water and soil associated benzene. For benzene released to the air some washout in rainwater is anticipated. Benzene is considered biodegradable.

Bioaccumulative potential

- Material data lacking.

Mobility in Soil

- Benzene released to the soil can be transported to the air through volatilization, to surface water through runoff, and to groundwater as a result of leaching.

Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN1136	Coal Tar Distillates, Flammable (Contains Benzene, Toluene, Xylenes)	3	II	NDA
TDG	UN1136	COAL TAR DISTILLATES, FLAMMABLE (Contains Benzene, Toluene, Xylenes)	3	II	NDA
IATA/ICAO	UN1136	Coal Tar Distillates, Flammable (Contains Benzene, Toluene, Xylenes)	3	II	NDA

Special precautions for user

- None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute, Chronic, Fire

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	Korea KECL
Alkenes	592-41-6	Yes	No	Yes	No	Yes
2-Butanone	78-93-3	Yes	No	Yes	No	Yes
Acetone	67-64-1	Yes	No	Yes	No	Yes
Benzene	71-43-2	Yes	No	Yes	No	Yes
Heptane	142-82-5	Yes	No	Yes	No	Yes
Toluene	108-88-3	Yes	No	Yes	No	Yes
Xylene	1330-20-7	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	B2, D2B
•Heptane	142-82-5	B2, D2B
•Toluene	108-88-3	B2, D2A, D2B

•Xylene	1330-20-7	B2, D2A, D2B
•Benzene	71-43-2	B2, D2A, D2B
•2-Butanone	78-93-3	B2, D2B
Canada - WHMIS - Ingredient Disclosure List		
•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	1 %
•Heptane	142-82-5	1 %
•Toluene	108-88-3	1 %
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	0.1 %
•2-Butanone	78-93-3	1 %

Environment

Canada - CEPA - Priority Substances List

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
•Xylene	1330-20-7	Priority Substance List 1 (substance not considered toxic)
•Benzene	71-43-2	Priority Substance List 1 (substance considered toxic)
•2-Butanone	78-93-3	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	Not Listed
•2-Butanone	78-93-3	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	5 ppm STEL (See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA
•2-Butanone	78-93-3	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	
•Xylene	1330-20-7	(isomers and mixtures)
•Benzene	71-43-2	(including Benzene from gasoline)

•2-Butanone	78-93-3	Not Listed
U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
•Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ
		10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ
•Benzene	71-43-2	(received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)
		5000 lb final RQ; 2270 kg final RQ
•2-Butanone	78-93-3	5000 lb final RQ; 2270 kg final RQ
U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities		
•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	Not Listed
•2-Butanone	78-93-3	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	Not Listed
•2-Butanone	78-93-3	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	Not Listed
•2-Butanone	78-93-3	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting		
•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	1.0 % de minimis concentration
•Xylene	1330-20-7	1.0 % de minimis concentration
•Benzene	71-43-2	0.1 % de minimis concentration
•2-Butanone	78-93-3	Not Listed
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
•Alkenes	592-41-6	Not Listed

•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	Not Listed
•2-Butanone	78-93-3	Not Listed
Inventory - United States - Section 8(b) Inventory (TSCA) - PMN Number to EPA Accession Number Link		
•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	Not Listed
•2-Butanone	78-93-3	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	carcinogen, initial date 2/27/87
•2-Butanone	78-93-3	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	developmental toxicity, initial date 1/1/91
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	developmental toxicity, initial date 12/26/97
•2-Butanone	78-93-3	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	24 µg/day MADL (oral); 49 µg/day MADL (inhalation)
•2-Butanone	78-93-3	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	6.4 µg/day NSRL (oral); 13 µg/day NSRL (inhalation)
•2-Butanone	78-93-3	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	Not Listed
•2-Butanone	78-93-3	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
•Alkenes	592-41-6	Not Listed
•Acetone	67-64-1	Not Listed
•Heptane	142-82-5	Not Listed
•Toluene	108-88-3	Not Listed
•Xylene	1330-20-7	Not Listed
•Benzene	71-43-2	male reproductive toxicity, initial date 12/26/97
•2-Butanone	78-93-3	Not Listed

Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm. Toxic Substances Control Act (TSCA) (40 CFR 710): This product is not on the TSCA Inventory. Use is limited to applications covered by the TSCA byproduct exemption: burning as a fuel, disposal as a waste, or extraction of component chemical substances. Acetone is subject to a TSCA Section 4 Test Rule.

Section 16 - Other Information

Last Revision Date	• 07/May/2014
Preparation Date	• 07/May/2014
Disclaimer/Statement of Liability	• The information contained in this Safety Data Sheet (SDS) is believed to be correct since it was obtained from sources we believe are reliable. However no representation, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications, hazards connected with the use of the material, or the results to be obtained from the use thereof. User assumes all risks and liability of any use, processing or handling of any material, variations in methods, conditions and equipment used to store, handle, or process the material and hazards connected with the use of the material are solely the responsibility of the user and remain at his sole discretion. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user, and the user has the responsibility to provide a safe work place to examine all aspects of its operation and to determine if or where precautions, in addition to those described herein, are required.

Key to abbreviations

NDA = No data available