

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 08/22/2017 Supersedes:01/04/2016 Version: 1.2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Trade name : JOHNSEN'S NON-CHLORINATED BPC SCAQMD RULE 1171 DRUM 55 GALLON

Product code : 2421-55

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

Use of the substance/mixture : Brake Cleaner

1.3. Details of the supplier of the safety data sheet

Technical Chemical Company P.O. BOX 139 Cleburne, Texas 76033 T 817-645-6088

1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225 Skin Irrit. 2 H315 Eye Irrit. 2A H319 Repr. 2 H361 STOT SE 3 H336

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)





GHS08

GHS02 GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS-US) : P201 - Obtain special instructions

P202 - Do not handle until all safety precautions have been read and understood P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking

P233 - Keep container tightly closed

P240 - Ground/Bond container and receiving equipment

P241 - Use explosion-proof electrical, ventilating, lighting equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge P261 - Avoid breathing dust,fume,gas,mist,vapor spray P264 - Wash affected areas thoroughly after handling P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves, protective clothing, eye protection, face protection

P302+P352 - If on skin: Wash with plenty of soap and water

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

skin with water/shower

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P308+P313 - If exposed or concerned: Get medical advice/attention P312 - Call a POISON CONTROL CENTER, doctor, if you feel unwell.

P321 - Specific treatment: See section 4.1 on SDS

P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention

22/08/2017 EN (English US) 1/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P362+P364 - Take off contaminated clothing and wash it before reuse P370+P378 - In case of fire: See Section 5.1 Extinguishing Media P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P403+P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with

local, regional, national, international regulations.

2.3. Other hazards

Other hazards not contributing to the classification

: None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

- 2.5 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
- 2.5 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Acetone	(CAS No) 67-64-1	>= 95	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Heptane, Branched Cyclic	(CAS No) 426260-76-6	2.4 - 2.5	Flam. Liq. 1, H224 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
n-Heptane	(CAS No) 142-82-5	0.625 - 1.125	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Toluene	(CAS No) 108-88-3	0.025 - 0.1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304

The exact percentage is a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measur

First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get

medical advice/attention.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a

POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash

with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation

occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Suspected of damaging fertility or the unborn child.

Symptoms/injuries after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. Irritation of the

respiratory tract. Headache. Dizziness.

Symptoms/injuries after skin contact : Causes skin irritation. Itching. Red skin. Skin rash/inflammation.

Symptoms/injuries after eye contact : Causes serious eye irritation. Redness of the eye tissue. Irritation of the eye tissue.

Inflammation/damage of the eye tissue.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways. May be harmful if swallowed and enters airways.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

22/08/2017 EN (English US) 2/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No

smoking

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust,fume,gas,mist,vapor spray.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Contain released substance, pump into suitable containers. Plug the

leak, cut off the supply.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect

spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling

: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Avoid breathing

dust,fume,gas,mist,vapor spray. Use only outdoors or in a well-ventilated area.

Hygiene measures

: Wash affected areas thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Always wash hands after handling the product. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Take off immediately all contaminated clothing and wash it before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking

and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond

container and receiving equipment. Use explosion-proof electrical, ventilating, lighting

equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep in fireproof

place. Keep container tightly closed.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

Follow Label Directions.

22/08/2017 EN (English US) 3/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 8: Exposure controls/personal protection

3.1. Control parameters

S.T. Control parameters				
Toluene (108-88-3)				
USA ACGIH	ACGIH TWA (mg/m³)	75 mg/m³		
USA ACGIH	ACGIH TWA (ppm)	20 ppm		
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm		
USA OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm		
n-Heptane (142-82-5)				
USA ACGIH	ACGIH TWA (ppm)	400 ppm (Heptane, all isomers; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)		
USA ACGIH ACGIH STEL (ppm)		500 ppm (Heptane, all isomers; USA; Short time value; TLV - Adopted Value)		
Heptane, Branched Cyclic (4	26260-76-6)			
USA ACGIH	ACGIH TWA (ppm)	400 ppm		
USA ACGIH	ACGIH STEL (ppm)	500 ppm		
USA OSHA	OSHA PEL (TWA) (ppm)	500 ppm		
Benzene (71-43-2)				
USA ACGIH	ACGIH TWA (ppm)	1 ppm		
USA ACGIH	ACGIH STEL (ppm)	5 ppm		
USA ACGIH	ACGIH Ceiling (ppm)	25 ppm		
USA OSHA	OSHA PEL (TWA) (ppm)	1 ppm		
USA OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm		
Acetone (67-64-1)				
USA ACGIH	ACGIH TWA (mg/m³)	1188 mg/m³		
USA ACGIH	ACGIH TWA (ppm)	500 ppm		
USA ACGIH ACGIH STEL (mg/m³) 1782 mg/m³		1782 mg/m³		
USA ACGIH	ACGIH STEL (ppm)	750 ppm		
USA OSHA OSHA PEL (TWA) (mg/m³)		2400 mg/m³		
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm		
2. Exposure controls				

8.2. Exposure controls

Appropriate engineering controls

- : Local exhaust venilation, vent hoods . Ensure good ventilation of the work station.
- Personal protective equipment : Safety glasses. Gloves. Avoid all unnecessary exposure.





Materials for protective clothing : GIVE EXCELLENT RESISTANCE:

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.
Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is

recommended.

Environmental exposure controls : Avoid release to the environment.

Consumer exposure controls : Avoid contact during pregnancy/while nursing.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.

Color : Colourless to light yellow.

Odor : Solvent-like odour. Acetone odour.

22/08/2017 EN (English US) 4/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odor threshold : No data available

pH : 7
Relative evaporation rate (butyl acetate=1) : 6
Relative evaporation rate (ether=1) : 2

Melting point : No data available Freezing point : No data available

Boiling point : $56 \, ^{\circ}\mathrm{C}$ Flash point : $-20 \, ^{\circ}\mathrm{C}$

Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available

Relative density : 0.788

Solubility : Poorly soluble in water. Soluble in alcohols. Soluble in ethanol. Soluble in ether. Soluble in

heptane. Soluble in hexane. Soluble in methanol. Soluble in xylene. Soluble in toluene.

Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : 0.417 mm²/s
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosion limits : No data available

9.2. Other information

VOC content : <= 2.5 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Toluene (108-88-3)	
LD50 oral rat	5580 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Literature study; 5580 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 5000 mg/kg body weight LD50 quoted as 14.1 mL/kg (12267 mg/kg using density of 0.87)
LC50 inhalation rat (mg/l)	> 28.1 mg/l/4h (Rat; Air, Literature study)
n-Heptane (142-82-5)	
LD50 oral rat	> 15000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; >5000 mg/kg bodyweight; Rat; Read-across)
LD50 dermal rabbit	> 3160 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit; Read-across)
LC50 inhalation rat (mg/l)	103 mg/l/4h (Rat: Literature study)

22/08/2017 EN (English US) 5/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

n-Heptane (142-82-5)				
LC50 inhalation rat (ppm) 25000 ppm/4h (Rat; Literature study)				
Heptane, Branched Cyclic (426260-76-6)				
LD50 oral rat	> 15000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; >5000 mg/kg bodyweight; Rat; Read-across)			
LD50 dermal rabbit	> 3160 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit; Read-across)			
LC50 inhalation rat (mg/l)	103 mg/l/4h (Rat; Literature study)			
LC50 inhalation rat (ppm)	25000 ppm/4h (Rat; Literature study)			
Benzene (71-43-2)				
LD50 oral rat	> 930 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; > 2000 mg/kg bodyweight; Rat; Experimental value)			
LD50 dermal rabbit	> 8240 mg/kg (Rabbit; Experimental value; 21 CFR 191.10; > 9.4; Rabbit)			
LC50 inhalation rat (mg/l)	43.767 mg/l/4h (Rat; Experimental value)			
LC50 inhalation rat (ppm)	13700 ppm/4h (Rat; Experimental value)			
Acetone (67-64-1)				
LD50 oral rat	5800 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)			
LD50 dermal rabbit	20000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402)			
LC50 inhalation rat (mg/l)	71 mg/l/4h (Rat; Experimental value; 76 mg/l/4h; Rat; Experimental value)			
LC50 inhalation rat (ppm)	30000 ppm/4h (Rat; Experimental value)			
Skin corrosion/irritation	: Causes skin irritation.			
Serious eye damage/irritation	pH: 7 : Causes serious eye irritation.			
, ,	pH: 7			
Respiratory or skin sensitization	: Not classified			
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met			
Carcinogenicity	: Not classified			
Toluene (108-88-3)				
IARC group	3			
Benzene (71-43-2)				
IARC group	1			
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.			
Specific target organ toxicity – single exposure	: May cause drowsiness or dizziness.			
Specific target organ toxicity – repeated exposure	: Not classified			
Aspiration hazard	: Not classified			
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.			
Symptoms/injuries after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Irritation of the respiratory tract. Headache. Dizziness.			
Symptoms/injuries after skin contact	: Causes skin irritation. Itching. Red skin. Skin rash/inflammation.			
Symptoms/injuries after eye contact	: Causes serious eye irritation. Redness of the eye tissue. Irritation of the eye tissue. Inflammation/damage of the eye tissue.			

SECTION 12: Ecological information

12.1. Toxicity

n-Heptane (142-82-5)	e (142-82-5)			
EC50 Daphnia 1	0.2 mg/l (LC50; Other; 96 h; Chaetogammarus marinus; Semi-static system; Salt water; Experimental value)			
Benzene (71-43-2)				
LC50 fish 1	5.3 mg/l (LC50; 96 h; Salmo gairdneri)			
EC50 Daphnia 2	10 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)			
Threshold limit algae 1	100 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)			

22/08/2017 EN (English US) 6/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Acetone (67-64-1)		
EC50 Daphnia 2	12600 mg/l (LC50; Other; 48 h; Daphnia magna; Static system; Fresh water; Experimental	
	value)	
Acetone (67-64-1)		
LC50 fish 1	6210 mg/l (96 h; Pimephales promelas; Nominal concentration)	
EC50 Daphnia 1	8800 mg/l (48 h; Daphnia pulex)	
LC50 fish 2	5540 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
TLM fish 1	13000 ppm (96 h; Gambusia affinis; Turbulent water)	
TLM fish 2	> 1000 ppm (96 h; Pisces)	
Threshold limit other aquatic organisms 1	3000 mg/l (Plankton)	
Threshold limit other aquatic organisms 2	28 mg/l (Protozoa)	
Threshold limit algae 1	7500 mg/l (Scenedesmus quadricauda; pH = 7)	
Threshold limit algae 2	3400 mg/l (48 h; Chlorella sp.)	
12.2. Persistence and degradability		
JOHNSEN'S NON-CHLORINATED BPC SCA	AQMD RULE 1171 DRUM 55 GALLON	
Persistence and degradability	Not established.	
Toluene (108-88-3)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.	
Biochemical oxygen demand (BOD)	2.15 g O ₂ /g substance	
Chemical oxygen demand (COD)	2.52 g O ₂ /g substance	
ThOD	3.13 g O ₂ /g substance	
BOD (% of ThOD)	0.69	
n-Heptane (142-82-5)		
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air. Not established.	
Biochemical oxygen demand (BOD)	1.92 g O ₂ /g substance	
Chemical oxygen demand (COD)	0.06 g O ₂ /g substance	
ThOD	3.52 g O ₂ /g substance	
BOD (% of ThOD)	> 0.5 (5 days; Literature study)	
Heptane, Branched Cyclic (426260-76-6)		
Persistence and degradability	May cause long-term adverse effects in the environment.	
·	may cause long term autorice eneste in the entire initiality.	
Benzene (71-43-2)	Deadily hiederwodelskie in water Oranation in water Forming and monte in water	
Persistence and degradability	Readily biodegradable in water. Ozonation in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air. Not established.	
Biochemical oxygen demand (BOD)	2.18 g O ₂ /g substance	
Chemical oxygen demand (COD)	2.15 g O ₂ /g substance	
ThOD	3.1 g O ₂ /g substance	
BOD (% of ThOD)	0.7	
Acetone (67-64-1)		
Persistence and degradability	Not established.	
Acetone (67-64-1)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available. Not established.	
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance	
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance	
ThOD	2.2 g O ₂ /g substance	
BOD (% of ThOD)	(20 day(s)) 0.872	
12.3. Bioaccumulative potential		
JOHNSEN'S NON-CHLORINATED BPC SCAQMD RULE 1171 DRUM 55 GALLON Bioaccumulative potential Not established.		
Toluene (108-88-3)		
BCF fish 2	90 (BCF; 72 h; Leuciscus idus; Static system; Fresh water)	
Log Pow	2.73 (Experimental value; Other; 20 °C)	
Bioaccumulative potential Low potential for bioaccumulation (BCF < 500).		
n-Heptane (142-82-5)		
BCF other aquatic organisms 1	552 (BCF; BCFBAF v3.00)	

22/08/2017 EN (English US) 7/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

n-Heptane (142-82-5)				
Log Pow 4.66 (Experimental value; 4.5; Literature study)				
Bioaccumulative potential Potential for bioaccumulation (4 ≥ Log Kow ≤ 5). Not established.				
Heptane, Branched Cyclic (426260-76-6)				
Bioaccumulative potential	Not established.			
Benzene (71-43-2)				
BCF fish 1	19 (BCF)			
BCF fish 2	< 10 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 3 days; Leuciscus idus; Flow-through system; Fresh water; Experimental value)			
BCF other aquatic organisms 1	30 (BCF; 24 h; Chlorella sp.)			
Log Pow	2.13 (Experimental value)			
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.			
Acetone (67-64-1)				
Bioaccumulative potential	Not established.			
Acetone (67-64-1)				
BCF fish 1	0.69 (Pisces)			
BCF other aquatic organisms 1	3			
Log Pow	-0.24 (Test data)			
Bioaccumulative potential Not bioaccumulative. Not established.				
12.4. Mobility in soil				
Toluene (108-88-3)				
Surface tension	0.03 N/m (20 °C)			
n-Heptane (142-82-5)				
Surface tension	0.019 N/m (25 °C; 0.020 N/m; 20 °C)			
Log Koc	log Koc,SRC PCKOCWIN v2.0; 2.38; Calculated value			
Benzene (71-43-2)				
Surface tension				
Log Koc	Koc,134.1; QSAR			
Acetone (67-64-1)				
Surface tension	0.0237 N/m (20 °C)			
12.5. Other adverse effects				
Other information	· Avoid release to the environment			

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to appropriate waste disposal facility, in accordance with local, regional,

national, international regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

22/08/2017 EN (English US) 8/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

US DOT (ground): UN1993, Flammable liquids, n.o.s. (Acetone, Heptanes) (-20C CC), 3, II ICAO/IATA (air): UN1993, Flammable liquids, n.o.s. (Acetone, Heptanes) (-20C CC), 3, II

IMO/IMDG (water): UN1993, Flammable liquids, n.o.s. (Acetone, Heptanes) (-20C CC), 3 (Marine Pollutant-Heptane), II

Special Provisions: B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging

requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 Č (100 F), then

the bulk packaging requirements of 173.242 of this subchapter are applicable.

B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized

on DOT 57 portable tanks.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T4 - 2.65 178.274(d)(2) Normal...... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees

celsius of the liquid during filling.

TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Flammable liquids, n.o.s. (Acetone, Heptanes) (-20C CC)

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : II - Medium Danger

DOT Special Provisions (49 CFR 172.102)

: B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a

flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.

B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

22/08/2017 EN (English US) 9/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Subsidiary risks (IMDG) : Marine Pollutant-Heptane

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 60 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L

CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

JOHNSEN'S NON-CHLORINATED BPC SCAQN	EN'S NON-CHLORINATED BPC SCAQMD RULE 1171 DRUM 55 GALLON			
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard			
	Delayed (chronic) health hazard			

Toluene (108-88-3)

Subject to reporting requirements of United States SARA Section 313 Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302

SARA Section 311/312 Hazard Classes

Delayed (chronic) health hazard
Fire hazard
Immediate (acute) health hazard

Heptane, Branched Cyclic (426260-76-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes

Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Benzene (71-43-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

Acetone (67-64-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard
Fire hazard
Delayed (chronic) health hazard

15.2. International regulations

CANADA

JOHNSEN'S NON-CHLORINATED BPC SCAQMD RULE 1171 DRUM 55 GALLON				
WHMIS Classification Class B Division 2 - Flammable Liquid				
Toluene (108-88-3)				
Listed on the Canadian DSL (Domestic Sub	ostances List)			
WHMIS Classification Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects				
Heptane, Branched Cyclic (426260-76-6)				
WHMIS Classification Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects				
Benzene (71-43-2)				
Listed on the Canadian DSL (Domestic Substances List)				
Acetone (67-64-1)				
Listed on the Canadian DSL (Domestic Substances List)				
WHMIS Classification Class B Division 2 - Flammable Liquid				

EU-Regulations

	Toluene (108-88-3)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)		
	Heptane, Branched Cyclic (426260-76-6)	
	Benzene (71-43-2)	

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

22/08/2017 EN (English US) 10/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Acetone (67-64-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11 Xi; R36 R66 R67 R52/53

Full text of R-phrases: see section 16

15.2.2. National regulations

Heptane, Branched Cyclic (426260-76-6)

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA under 40 CFR 720.30.

Benzene (71-43-2)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Acetone (67-64-1)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Korean ECL (Existing Chemicals List)

15.3. US State regulations

JOHNSEN'S NON-CHLORINATED BPC SCAQMD RULE 1171 DRUM 55 GALLON				
U.S California - Proposition 65 - Carcinogens List		No		
U.S California - Proposition 65 - Developmental Toxicity		No		
U.S California - Proposition 65 - Reproductive Toxicity - Female		No		
U.S California - Proposition 65 - Reproductive Toxicity - Male		No		
State or local regulations		U.S California - Proposition 65		
Toluene (108-88-3)				
U.S California -	U.S California -	U.S California -	U.S California -	Non-significant risk level

		<u> </u>		
Toluene (108-88-3)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	Yes	No	No	
n-Heptane (142-82-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	
Heptane, Branched Cycl	ic (426260-76-6)			
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

22/08/2017 EN (English US) 11/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Benzene (71-43-2)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	Yes	No	Yes	
Acetone (67-64-1)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	
Acetone (67-64-1)			<u> </u>	
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	

Toluene (108-88-3)

State or local regulations

U.S. - California - Proposition 65

U.S. - New Jersey - Special Health Hazards Substances List

New Jersey Right-to-Know

U.S. - Massachusetts - Right To Know List

Rhode Island Right to Know

U.S. - Michigan - Critical Materials List

U.S. - New Jersey - Environmental Hazardous Substances List

U.S. - Illinois - Toxic Air Contaminants

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Benzene (71-43-2)

State or local regulations

U.S. - California - Proposition 65

U.S. - Pennsylvania - RTK (Right to Know) List

New Jersey Right-to-Know

Acetone (67-64-1)

State or local regulations

U.S. - California - Proposition 65

Benzene 71-43-2

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes : Revision - See : *.

Other information : None.

Full text of H-phrases:

At of 11 philases.	
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye 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
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

22/08/2017 EN (English US) 12/13

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt

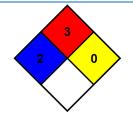
medical attention is given.

NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all

ambient conditions.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard Physical : 0 Minimal Hazard

Personal Protection : B

SDS US (GHS HazCom 2012) - TCC

The Supplier identified in Section 1 of this SDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product

Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

22/08/2017 EN (English US) 13/13