HALLIBURTON

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

CON DET®

Revision Date: 23-Sep-2015 Revision Number: 22

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

1.1. Product Identifier

Product Name CON DET® Internal ID Code HM003454

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

Recommended Use Anionic Surfactant

1.3. Details of the supplier of the safety data sheet

Halliburton Manufacturing Services, Ltd. Halliburton House, Howemoss Crescent

Kirkhill Industrial Estate

Dvce

Aberdeen, AB21 0GN United Kingdom

www.halliburton.com

For further information, please contact

E-Mail address: fdunexchem@halliburton.com

1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961

Emergency telephone - §	45 - (EC)1272/2008
Europe	112
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
Cyprus	+210 7793777
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO):+ 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Romania	+40 21 318 36 06
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

REGOEATION (EG) NO 1212/2000	
Not Hazardous	
Skin Corrosion / irritation	Category 2 - H315
Serious Eye Damage / Eye Irritation	Category 2 - H319

2.2. Label Elements

Not Hazardous

Hazard Pictograms



Signal Word

Warning

Hazard Statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

Precautionary Statements - EU (§28, 1272/2008)

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

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

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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

Contains

Substances	CAS Number
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7
Isopropanol	67-63-0
Potassium pyrophosphate	7320-34-5
Potassium hydroxide	1310-58-3
Sodium nitrite	7632-00-0
Hexamethylenetetramine chloroallyl chloride	4080-31-3

2.3. Other Hazards
This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on Ingredients

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH No.
Amides, coco, N,N-bis (hydroxyethyl)	271-657-0	68603-42-9	5 - 10%	Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Aquatic Chronic 3 (H412)	No data available
Benzenesulfonic acid, dimethyl-, sodium salt	215-090-9	1300-72-7	1 - 5%	Eye Irrit. 2 (H319)	No data available
Isopropanol	200-661-7	67-63-0	1 - 5%	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)	01-2119457558-25
Potassium pyrophosphate	230-785-7	7320-34-5	1 - 5%	Eye Irrit. 2A (H319)	No data available
Potassium hydroxide	215-181-3	1310-58-3	0.1 - 1%	Acute Tox. 4 (H302) Skin Corr. 1 (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Met. Corr. 1 (H290)	01-2119487136-33
Sodium nitrite	231-555-9	7632-00-0	0.1 - 1%	Acute Tox. 3 (H301) Eye Irrit. 2A (H319) STOT RE 2 (H373) Aquatic Acute 1 (H400) Ox. Sol. 3 (H272)	No data available
Hexamethylenetetramine chloroallyl chloride	223-805-0	4080-31-3	0.1 - 1%	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	No data available

For the full text of the H-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation If inhaled, remove from area to fresh air. Get medical attention if respiratory

irritation develops or if breathing becomes difficult.

Eyes In case of contact, immediately flush eyes with plenty of water for at least 15

minutes and get medical attention if irritation persists.

Skin Flush skin with large amounts of water. If irritation persists, get medical

attention.

Ingestion Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical

attention.

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

Causes eye irritation. Causes skin irritation.

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

Notes to Physician Treat symptomatically

SECTION 5: Firefighting Measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Special Exposure Hazards

Decomposition in fire may produce harmful gases.

5.3. Advice for firefighters

Special Protective Equipment for Fire-Fighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Ensure adequate ventilation. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Keep container closed when not in use. Product has a shelf life of 60 months.

7.3. Specific End Use(s)
Exposure Scenario
Other Guidelines

No information available No information available

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Not applicable	Not applicable	Not applicable	Not applicable
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Not applicable	Not applicable	Not applicable	Not applicable
Isopropanol	67-63-0	Not applicable	TWA: 400 ppm TWA: 999 mg/m³ STEL: 500 ppm STEL: 1250 mg/m³	Not applicable	STEL: 400 ppm STEL: 980 mg/m ³
Potassium pyrophosphate	7320-34-5	Not applicable	Not applicable	Not applicable	Not applicable
Potassium hydroxide	1310-58-3	Not applicable	STEL: 2 mg/m ³	2 mg/m ³	STEL: 2 mg/m ³
Sodium nitrite	7632-00-0	Not applicable	Not applicable	Not applicable	Not applicable
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Germany	Spain	Portugal	Finland	
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Not applicable	Not applicable	Not applicable	Not applicable	
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Not applicable	Not applicable	Not applicable	Not applicable	
Isopropanol	67-63-0	TWA: 200 ppm TWA: 500 mg/m ³	TWA: 200 ppm TWA: 500 mg/m³ 400 ppm STEL [VLA-EC]; 1000 mg/m³ STEL [VLA-EC]	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm TWA: 500 mg/m³ STEL: 250 ppm STEL: 620 mg/m³	
Potassium pyrophosphate	7320-34-5	Not applicable	Not applicable	Not applicable	Not applicable	
Potassium hydroxide	1310-58-3	Not applicable	2 mg/m³ STEL Not applicable [VLA-EC]		STEL: 2 mg/m ³	
Sodium nitrite	7632-00-0	Not applicable	Not applicable	Not applicable	Not applicable	
Hexamethylenetetramine chloroallyl chloride	4080-31-3	TWA: 2 mg/m ³	Not applicable	Not applicable	Not applicable	

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Not applicable	Not applicable	Not applicable	Not applicable
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Not applicable	Not applicable	Not applicable	Not applicable
Isopropanol	67-63-0	TWA: 200 ppm TWA: 500 mg/m³ STEL" 800 ppm STEL" 2000 mg/m³	200 ppm TWA 400 ppm STEL	TWA: 200 ppm TWA: 500 mg/m³ STEL: 400 ppm STEL: 1000 mg/m³	TWA: 100 ppm TWA: 245 mg/m³ STEL: 150 ppm STEL: 306.25 mg/m³
Potassium pyrophosphate	7320-34-5	Not applicable	Not applicable	Not applicable	Not applicable
Potassium hydroxide	1310-58-3	TWA: 2 mg/m ³	2 mg/m ³ STEL	TWA: 2 mg/m ³	Not applicable
Sodium nitrite	7632-00-0	Not applicable	Not applicable	Not applicable	Not applicable
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Not applicable	Not applicable	Not applicable	Not applicable

Substances CAS Number		CAS Number Italy		Hungary	Czech Republic	
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Not applicable	Not applicable	Not applicable	Not applicable	
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Not applicable	Not applicable	Not applicable	Not applicable	
Isopropanol	67-63-0	Not applicable	TWA: 900 mg/m ³ STEL: 1200 mg/m ³	TWA: 500 mg/m ³ STEL: 2000 mg/m ³	TWA: 500 mg/m ³	
Potassium pyrophosphate	7320-34-5	Not applicable	Not applicable	Not applicable	Not applicable	
Potassium hydroxide	1310-58-3	Not applicable	TWA: 0.5 mg/m ³ STEL: 1 mg/m ³	TWA: 2 mg/m ³ STEL: 2 mg/m ³	TWA: 1 mg/m ³	
Sodium nitrite	7632-00-0	Not applicable	Not applicable	Not applicable	Not applicable	
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Not applicable	Not applicable	Not applicable	Not applicable	

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Amides, coco, N,N-bis	68603-42-9	Not applicable	Not applicable	Not applicable	Not applicable

(hydroxyethyl)					
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Not applicable	Not applicable	Not applicable	Not applicable
Isopropanol	67-63-0	TWA: 200 ppm TWA: 490 mg/m ³	TWA: 81 ppm TWA: 200 mg/m ³ STEL: 203 ppm STEL: 500 mg/m ³	TWA: 400 ppm TWA: 999 mg/m³ STEL: 500 ppm STEL: 1250 mg/m³	Not applicable
Potassium pyrophosphate	7320-34-5	Not applicable	Not applicable	Not applicable	Not applicable
Potassium hydroxide	1310-58-3	Not applicable	Not applicable	STEL: 2 mg/m ³	Not applicable
Sodium nitrite	7632-00-0	Not applicable	Not applicable	Not applicable	Not applicable
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Not applicable	Not applicable	Not applicable	Not applicable

Derived No Effect Level (DNEL)

No information available.

<u>vvorker</u>									
Substances	Long-term	Acute / short	Long-term	Acute / short	Long-term	Acute / short	Long-term	Acute / short	Hazards for
	systemic effects, Inhalation	exposure -	local effects,	exposure - local effects,	systemic effects, Dermal	exposure -	local effects, Dermal		the eyes - local effects
Isopropanol	500 mg/m ³	Not available	Not available	Not available	888 mg/kg bw/day	Not available	Not available	Not available	Not available
Potassium hydroxide	Not available	Not available	1 mg/m ³	Not available	Not available	Not available	Not available	Not available	Not available

General Population

Outloid: I Opa											
Substances	Long-term	Acute /	Long-term	Acute /	Long-term	Acute /	Long-term	Acute /	Long-term	Acute /	Hazards
	exposure -	short term	exposure -	short term	exposure -	short term	exposure -	short term	exposure -	short term	for the
	systemic	exposure -	local	exposure -	systemic	exposure -	local	exposure -	systemic	exposure -	eyes -
	effects,	systemic	effects,	local	effects,	systemic	effects,	local	effects,	local	local
	Inhalation	effects,	Inhalation	effects,	Dermal	effects,	Dermal	effects,	Oral	effects,	effects
		Inhalation		Inhalation		Dermal		Dermal		Oral	
Isopropanol	89 mg/m ³	Not	Not	Not	319 mg/kg	Not	Not	Not	26 mg/kg	Not	Not
		available	available	available	bw/day	available	available	available	bw/day	available	available
Potassium	Not	Not	1 mg/m ³	Not	Not						
hydroxide	available	available		available	available						

Predicted No Effect Concentration (PNEC)

No information available.

Substances	Freshwater	Marine water	Intermittent	Sewage	Sediment	Sediment	Air	Soil	Secondary
			release	treatment	(freshwater)	(marine			poisoning
				plant		water)			
Isopropanol	140.9 mg/L	140.9 mg/L	140.9 mg/L	2251 mg/L	552 mg/kg	552 mg/kg	Not available	28 mg/kg	160 mg/kg
					sediment dw	sediment dw		soil dw	food

8.2. Exposure controls

Engineering Controls Use in a well ventilated area.

Personal protective equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection Not normally needed. But if significant exposures are possible then the following

respirator is recommended: Organic vapor respirator.

Hand ProtectionImpervious rubber gloves.Skin ProtectionNormal work coveralls.

Eye Protection Wear safety glasses or goggles to protect against exposure.

Other Precautions None known.

Environmental Exposure Controls Do not allow material to contaminate ground water system

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State:LiquidColor:Transparent RedOdor:AlcoholOdor Threshold:No information available

<u>Property</u> <u>Values</u>

Remarks/ - Method

pH: 9.5 @ 1% Freezing Point/Range -2.2 °C

Melting Point/RangeNo data availableBoiling Point/RangeNo data available

Flash Point 99 °C / 210 °F PMCC

Flammability (solid, gas)
upper flammability limit
lower flammability limit
No data available
No data available
Evaporation rate
No data available
Vapor Pressure
No data available
Vapor Density
No data available

Specific Gravity 1.025

Water Solubility Soluble in water No data available Solubility in other solvents Partition coefficient: n-octanol/water No data available **Autoignition Temperature** No data available No data available **Decomposition Temperature** No data available **Viscosity Explosive Properties** No information available **Oxidizing Properties** No information available

9.2. Other information

VOC Content (%) No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical Stability

Stable

10.3. Possibility of Hazardous Reactions

Will Not Occur

10.4. Conditions to Avoid

None anticipated

10.5. Incompatible Materials

Strong oxidizers.

10.6. Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

Inhalation May cause mild respiratory irritation.

Eye Contact Skin ContactCauses eye irritation.

Causes skin irritation.

Ingestion May cause abdominal pain, vomiting, nausea, and diarrhea.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No data available	No data available	No data available
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	7200 mg/kg (Rat) > 7000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	>6.41 mg/L (Rabbit) 3.87h (similar substance)
Isopropanol	67-63-0	4396 mg/kg (Rat) 5840 mg/kg (Rat) 3600 mg/kg (Mouse)	12,800 mg/kg (Rat) 12,870 mg/kg (Rabbit) 6280 mg/kg (Rabbit)	72.6 mg/L (Rat) 4h > 10,000 mg/L (Rat) 6h
Potassium pyrophosphate	7320-34-5	2440 mg/kg (Rat) (similar substance)	4640 mg/kg (Rabbit) > 2000 mg/kg (Rat)	> 1.1 mg/L (Rat) 4h (saturated concentration)
Potassium hydroxide	1310-58-3	214 mg/kg (Rat) 273 mg/kg (Rat) 333 - 388 mg/kg (Rat)	No data available	No data available

Sodium nitrite	7632-00-0	85 mg/kg (Rat) 180 mg/kg (Rat)	No data available	5.5 mg/L (Rat) 4h 85 mg/L (Mouse) (similar substance)
Hexamethylenetetramine chloroallyl chloride	4080-31-3	500 mg/kg (Rat)	565 mg/kg (Rabbit)	> 4.7 mg/L (Rat)

Substances	CAS Number	Skin corrosion/irritation
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Irritating to skin. (Rabbit)
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Not irritating to skin in rabbits.
Isopropanol	67-63-0	Non-irritating to the skin (Rabbit)
Potassium pyrophosphate	7320-34-5	Not irritating to skin in rabbits.
Potassium hydroxide	1310-58-3	Corrosive to skin (Rabbit)
Sodium nitrite	7632-00-0	Not irritating to skin in rabbits.
Hexamethylenetetramine chloroallyl chloride	4080-31-3	May cause moderate skin irritation.

Substances	CAS Number	Eye damage/irritation
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Irritating to eyes. (Rabbit)
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Eye, rabbit: Causes moderate eye irritation.
Isopropanol	67-63-0	Causes moderate eye irritation. (Rabbit)
Potassium pyrophosphate	7320-34-5	Eye, rabbit: Causes moderate eye irritation.
Potassium hydroxide	1310-58-3	Corrosive to eyes (Rabbit)
Sodium nitrite	7632-00-0	Causes moderate eye irritation. (Rabbit)
Hexamethylenetetramine chloroallyl chloride	4080-31-3	May cause eye irritation

Substances	CAS Number	Skin Sensitization
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Did not cause sensitization on laboratory animals (guinea pig)
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Isopropanol	67-63-0	Did not cause sensitization on laboratory animals (guinea pig)
Potassium pyrophosphate	7320-34-5	Did not cause sensitization on laboratory animals (mouse) (similar substances)
Potassium hydroxide	1310-58-3	Did not cause sensitization on laboratory animals (guinea pig)
Sodium nitrite	7632-00-0	Not regarded as a sensitizer.
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Not confirmed to cause skin or respiratory sensitization.

Substances	CAS Number	Respiratory Sensitization
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No information available
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	No information available
Isopropanol	67-63-0	No information available
Potassium pyrophosphate	7320-34-5	No information available
Potassium hydroxide	1310-58-3	No information available
Sodium nitrite	7632-00-0	No information available
Hexamethylenetetramine chloroallyl chloride	4080-31-3	No information available

Substances	CAS Number	Mutagenic Effects
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	In vitro tests did not show mutagenic effects Some in vivo tests have shown mutagenic effects.
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	While some in vitro tests were positive and/or equivocal, in vivo results were negative. (similar substances)
Isopropanol	67-63-0	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Potassium pyrophosphate	7320-34-5	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Potassium hydroxide	1310-58-3	Not regarded as mutagenic.
Sodium nitrite	7632-00-0	Not regarded as mutagenic.
Hexamethylenetetramine chloroallyl chloride	4080-31-3	While some in vitro tests were positive and/or equivocal, in vivo results were negative.

Sunstances	CAS	Carcinogenic Effects
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	Number	
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No data of sufficient quality are available.
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Did not show carcinogenic effects in animal experiments (Rat)
Isopropanol	67-63-0	Did not show carcinogenic effects in animal experiments
Potassium pyrophosphate	7320-34-5	No information available.
Potassium hydroxide	1310-58-3	No data of sufficient quality are available.
Sodium nitrite	7632-00-0	Did not show carcinogenic effects in animal experiments
Hexamethylenetetramine chloroallyl chloride	4080-31-3	No information available.

Substances	CAS Number	Reproductive toxicity
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Did not show teratogenic effects in animal experiments.
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Did not show teratogenic effects in animal experiments.
Isopropanol	67-63-0	No significant toxicity observed in animal studies at concentration requiring classification.
Potassium pyrophosphate	7320-34-5	Did not show teratogenic effects in animal experiments. (similar substances)
Potassium hydroxide	1310-58-3	Not applicable due to corrosivity of the substance.
Sodium nitrite	7632-00-0	Not regarded as a reproductive and developmental toxicant.
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Not a confirmed teratogen or embryotoxin.

Substances	CAS Number	STOT - single exposure
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No significant toxicity observed in animal studies at concentration requiring classification.
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Isopropanol	67-63-0	May cause headache, dizziness, and other central nervous system effects.
Potassium pyrophosphate	7320-34-5	No significant toxicity observed in animal studies at concentration requiring classification.
Potassium hydroxide	1310-58-3	Not applicable due to corrosivity of the substance.
Sodium nitrite	7632-00-0	No significant toxicity observed in animal studies at concentration requiring classification.
Hexamethylenetetramine chloroallyl chloride	4080-31-3	No data of sufficient quality are available.

Substances	CAS Number	STOT - repeated exposure
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No data of sufficient quality are available.
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Isopropanol	67-63-0	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Potassium pyrophosphate	7320-34-5	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Potassium hydroxide	1310-58-3	Not applicable due to corrosivity of the substance.
Sodium nitrite	7632-00-0	Causes damage to organs through prolonged or repeated exposure: (spleen) (Kidney)
Hexamethylenetetramine chloroallyl chloride	4080-31-3	No data of sufficient quality are available.

Substances	CAS Number	Aspiration hazard
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Not applicable
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	Not applicable
Isopropanol	67-63-0	Not applicable
Potassium pyrophosphate	7320-34-5	Not applicable
Potassium hydroxide	1310-58-3	Not applicable
Sodium nitrite	7632-00-0	Not applicable
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Not applicable

SECTION 12: Ecological Information

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	LC50 (96h) 3.6 mg/L (Brachydanio rerio)	EC50 (72h) 2.2 mg/L (Scenedesmus subspicatus)	No information available	EC50 (48h) 2.25 mg/L (Ceropdaphnia dubia) NOEC (21d) 1.0 mg/L (Daphnia magna)
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	EC50 (96h) >230 mg/L (Pseudokirchnerella subcapitata)	LC50 (96h) >1580 mg/L (Oncorhynchus mykiss)	EC10 (3h) > 1000 mg/L (Activated sludge, domestic)	EC50 (48h) >1000 mg/L (Daphnia magna)
Isopropanol	67-63-0	EC50 (72h) > 1000 mg/L (Desmodesmus subspicatus) EC50 (7d) 1800 mg/L (Scenedesmus quadricauda)	LC50 (96h) 9640 mg/L (Pimephales promelas) LC50 (7d) 7060 mg/L (Poecilia reticulata)	TT (16h) 1050 mg/L (Pseudomonas putida)	EC50 (48h) 13,299 mg/L (Daphnia magna) EC50 (24h) > 10,000 mg/L (Daphnia magna)
Potassium pyrophosphate	7320-34-5	EC50 (72h) > 100 mg/L (Desmodesmus subspicatus)	LC50 (96h) > 100 mg/L (Oncorhynchus mykiss) (similar substance)	No information available	EC50 (48h) > 100 mg/L (Daphnia magna)
Potassium hydroxide	1310-58-3	No information available	LC50 (96h) 80 mg/L (Gambusia affinis) (TLm) Lethal Concentration (24h) 56 mg/L (Lepomis macrochirus) NOEC (24h) 28 mg/L (Lepomis macrochirus)	EC50 (15m) 22 mg/L (Photobacterium phosphoreum)	TLM96 251,200 ppm (Mysidopsis bahia) EC100 (2d) > 10 mg/L (Dreissena polymorpha)
Sodium nitrite	7632-00-0	EC50(72h): > 100 mg/L (Desmodesmus subspicatus) NOEC(72h): 100 mg/L (Desmodesmus subspicatus)	LC50(96h): 0.11 mg/L (Oncorhynchus mykiss) NOEC(31d): 6.16 mg/L (Ictalurus punctatus)	EC50(180m): 510 mg/L (activated sludge, domestic)	EC50(48h): 1.1 mg/L (Cherax quadricarinatus) NOEC(80d): > 20 mg/L (Penaeus monodon)
Hexamethylenetetramine chloroallyl chloride	4080-31-3	No information available	LC50 (96h) 59 mg/L (Lepomis macrochirus)	No information available	EC50 (48h) 42 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Readily biodegradable (84% @ 28d)
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	(84% @ 28d)
Isopropanol	67-63-0	Readily biodegradable (53% @ 5d)
Potassium pyrophosphate	7320-34-5	The methods for determining biodegradability are not applicable to inorganic substances.
Potassium hydroxide	1310-58-3	The methods for determining biodegradability are not applicable to inorganic substances.
Sodium nitrite	7632-00-0	The methods for determining biodegradability are not applicable to inorganic substances.
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Readily biodegradable (100% @ 7d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No information available
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	-3.12
Isopropanol	67-63-0	0.05
Potassium pyrophosphate	7320-34-5	No information available
Potassium hydroxide	1310-58-3	0.65 - 0.83
Sodium nitrite	7632-00-0	-3.7
Hexamethylenetetramine chloroallyl chloride	4080-31-3	Log Kow = -0.1

12.4. Mobility in soil

Substances	CAS Number	Mobility
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No information available
Benzenesulfonic acid, dimethyl-, sodium salt	1300-72-7	KOC = 1.0 (estimated)
Isopropanol	67-63-0	KOC = 1.5
Potassium pyrophosphate	7320-34-5	Soluble in water
Potassium hydroxide	1310-58-3	No information available
Sodium nitrite	7632-00-0	No information available
Hexamethylenetetramine chloroallyl chloride	4080-31-3	No information available

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no

substance considered to be very persistent nor very bioaccumulating (vPvB).

Substances	PBT and vPvB assessment
Amides, coco, N,N-bis (hydroxyethyl)	Not PBT/vPvB
Benzenesulfonic acid, dimethyl-, sodium salt	Not PBT/vPvB
Isopropanol	Not PBT/vPvB
Potassium pyrophosphate	Not applicable
Potassium hydroxide	Not applicable
Sodium nitrite	Not applicable
Hexamethylenetetramine chloroallyl chloride	Not PBT/vPvB

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Disposal Method Contaminated Packaging Disposal should be made in accordance with federal, state, and local regulations.

Follow all applicable national or local regulations.

SECTION 14: Transport Information

IMDG/IMO

UN Number:
UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group:
Not applicable
Environmental Hazards:
Not applicable
Not applicable

<u>RID</u>

UN Number:
UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group:
Environmental Hazards:
Not restricted
Not applicable
Not applicable
Not applicable

<u>ADR</u>

UN Number:
UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group:
Environmental Hazards:
Not restricted
Not applicable
Not applicable

IATA/ICAO

UN Number:
UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group:
Not applicable
Not applicable
Not applicable
Not applicable

14.1. UN Number: Not restricted

14.2. UN Proper Shipping Name: Not restricted

14.3. Transport Hazard Class(es): Not applicable

14.4. Packing Group: Not applicable

14.5. Environmental Hazards: Not applicable

14.6. Special Precautions for User: None

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

SECTION 15: Regulatory Information

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

International Inventories

EINECS Inventory This product, and all its components, complies with EINECS

US TSCA Inventory
All components listed on inventory or are exempt.
All components listed on inventory or are exempt.
All components listed on inventory or are exempt.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering

Classes (WGK)

WGK 1: Low hazard to waters.

15.2. Chemical Safety Assessment

No information available

SECTION 16: Other Information

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

H272 - May intensify fire; oxidizer

H290 - May be corrosive to metals

H225 - Highly flammable liquid and vapor

H301 - Toxic if swallowed

H302 - Harmful if swallowed

H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H373 - May cause damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H412 - Harmful to aquatic life with long lasting effects

Key or legend to abbreviations and acronyms

bw - body weight

CAS - Chemical Abstracts Service

CLP - REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification,

Labelling and Packaging of substances and mixtures

EC - European Commission

EC10 - Effective Concentration 10%

EC50 - Effective Concentration 50%

EEC - European Economic Community

ErC50 – Effective Concentration growth rate 50%

IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

LC50 - Lethal Concentration 50%

LD50 - Lethal Dose 50%

LL0 – Lethal Loading 0%

LL50 - Lethal Loading 50%

MARPOL - International Convention for the Prevention of Pollution from Ships

mg/kg - milligram/kilogram

mg/L - milligram/liter

NIOSH - National Institute for Occupational Safety and Health

NOEC – No Observed Effect Concentration

NTP - National Toxicology Program

OEL - Occupational Exposure Limit

PBT - Persistent Bioaccumulative and Toxic

PC - Chemical Product category

PEL – Permissible Exposure Limit

ppm - parts per million

PROC - Process category

REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

STEL - Short Term Exposure Limit

SU - Sector of Use category

Key literature references and sources for data

www.ChemADVISOR.com/

Revision Date: 23-Sep-2015

Revision Note

SDS sections updated: 1

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010

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End of Safety Data Sheet