SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704-331-7000 **Information of the substance/preparation:** BU Oil & Mining Services Product Stewardship +1-704-331-7710 **Emergency tel. number:** +1 800-424-9300(CHEMTREC)

Trade name: **MULTITREAT 14849**
Material number: 321048

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	:	Category 3
Acute toxicity (Inhalation)	:	Category 4
Acute toxicity (Dermal)	:	Category 4
Skin corrosion	:	Category 1C
Serious eye damage	:	Category 1
Skin sensitisation	:	Category 1
Carcinogenicity	:	Category 2
Reproductive toxicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)
Specific target organ toxicity - repeated exposure	:	Category 2 (hearing organs, Kidney, Liver, Central nervous system)
Specific target organ toxicity - repeated exposure (Inhalation)	:	Category 2 (Central nervous system)
Aspiration hazard	:	Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 + H332 Harmful in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs (hearing organs, Kidney, Liver, Central nervous system) through prolonged or repeated exposure.
H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
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.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with

water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

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.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Xylene	1330-20-7	70 - 90
Ethylbenzene	100-41-4	5 - 10
Proprietary ingredient 3315	Not Assigned	1 - 5
Coco dimethyl benzyl ammonium chloride	61789-71-7	1 - 5
Toluene	108-88-3	1 - 5
Mercaptoacetic acid	68-11-1	1 - 5
Benzenesulfonic acid, C10-16-alkyl derivs.	68584-22-5	0.1 - 1
Cumene	98-82-8	0.1 - 1
Methanol	67-56-1	0.1 - 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Remove/ Take off immediately all contaminated clothing.
Get medical advice/ attention if you feel unwell.

If inhaled : Move the victim to fresh air.
Give oxygen or artificial respiration if needed.
Get immediate medical advice/ attention.

Never give anything by mouth to an unconscious person.

In case of skin contact	:	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if irritation develops and persists. Wash contaminated clothing before reuse.
In case of eye contact	:	Do not wear contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical advice/ attention.
If swallowed	:	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical advice/ attention. Call your local Poison Control Center (In the U.S. call 1-800-222-1222).
Most important symptoms and effects, both acute and delayed	:	The possible symptoms known are those derived from the labelling (see section 2). No additional symptoms are known.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water mist Dry chemical Carbon dioxide (CO2) Alcohol-resistant foam Cool containers/tanks with water spray.
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO) Carbon dioxide (CO2)
Further information	:	In the event of fire and/or explosion do not breathe fumes. Emits toxic and corrosive fumes under fire conditions. Do not allow run-off from fire fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cool containers/tanks with water spray.
Special protective equipment for firefighters	:	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove all spark producing devices or ignition sources. Wear proper personnel protective equipment. Using non-sparking tools collect as a liquid for recycling/disposal or absorb onto a suitable absorbant and secure in a suitable container. Collect any contaminated soils or cleaning waste in a suitable container for proper disposal. Absorbent materials such as dry sand, absorbent booms, and vermiculite may be used to keep material from entering drains, sewers, or streams.
Environmental precautions	:	The product should not be allowed to enter drains, water courses or the soil.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly. Incineration in suitable incineration plant, observing local authority regulations Take measures to prevent the build up of electrostatic charge. Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Keep away sources of ignition. Take precautionary measures against build-up of electrostatic charges, e.g earthing during loading and off-loading operations.
Advice on safe handling	:	Handle in accordance with good industrial hygiene and safety practice. Use only with adequate ventilation/personal protection. For personal protection see section 8. Avoid contact with skin, eyes and clothing. Keep away from sources of ignition - No smoking. Keep tightly closed in a dry, cool and well-ventilated place. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Wash thoroughly after handling. Incompatible with oxidizing agents.
Further information on storage conditions	:	Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Xylene	1330-20-7	STEL	150 ppm 655 mg/m3	OSHA P0
		TWA	100 ppm 435 mg/m3	OSHA P0
Ethylbenzene	100-41-4	TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0
Toluene	108-88-3	TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m3	NIOSH REL
		ST	150 ppm 560 mg/m3	NIOSH REL
		TWA	200 ppm	OSHA Z-2
		CEIL	300 ppm	OSHA Z-2
		Peak	500 ppm (10 minutes)	OSHA Z-2
		TWA	100 ppm 375 mg/m3	OSHA P0
		STEL	150 ppm 560 mg/m3	OSHA P0
Mercaptoacetic acid	68-11-1	TWA	1 ppm 4 mg/m3	NIOSH REL
		TWA	1 ppm 4 mg/m3	OSHA P0
Cumene	98-82-8	TWA	50 ppm	ACGIH
		TWA	50 ppm 245 mg/m3	NIOSH REL
		TWA	50 ppm 245 mg/m3	OSHA Z-1
		TWA	50 ppm 245 mg/m3	OSHA P0
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m3	NIOSH REL

		ST	250 ppm 325 mg/m3	NIOSH REL
		TWA	200 ppm 260 mg/m3	OSHA Z-1
		STEL	250 ppm 325 mg/m3	OSHA P0
		TWA	200 ppm 260 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI
Ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.15 g/g creatinine	ACGIH BEI
Toluene	108-88-3	Toluene	In blood	Prior to last shift of workweek	0.02 mg/l	ACGIH BEI
		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI
		o-Cresol	Urine	End of shift (As soon as possible after exposure ceases)	0.3 mg/g Creatinine	ACGIH BEI
Xylene	1330-20-7	Methylhippuric acids	Urine	End of shift (As soon as possible after exposure ceases)	1.5 g/g creatinine	ACGIH BEI

Engineering measures : Use only in area provided with appropriate exhaust ventilation.
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.
Use engineering controls such as local or general exhaust to maintain airborne concentrations below exposure limits.

Personal protective equipment

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Hand protection
Material : Silver Shield(R) gloves
Remarks : Viton® PVA gloves or gauntlets

Eye protection : Wear safety glasses with side shelds, chemical splash goggles, and /or full face shield to prevent contact with eyes.

Skin and body protection : Wear protective clothing, including long sleeves and gloves, to prevent skin contact.

Protective measures : Observe the usual precautions for handling chemicals.

Hygiene measures : Wash hands before breaks and at the end of workday.
Take off immediately all contaminated clothing and wash it before reuse.
Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	light yellow
Odour	:	aromatic
Odour Threshold	:	no data available
pH	:	Not applicable
Melting point	:	< 73 °F / < 23 °C
Boiling point	:	280 °F / 138 °C
Flash point	:	82 °F / 28 °C

Evaporation rate	:	no data available
Self-ignition	:	810 °F / 432 °C
Upper explosion limit / upper flammability limit	:	7 %(V)
Lower explosion limit / Lower flammability limit	:	1 %(V)
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Density	:	0.86 - 0.90 g/cm3 (59 °F / 15 °C)
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	no data available
Decomposition temperature	:	no data available
Viscosity		
Viscosity, dynamic	:	< 25 mPa.s (77 °F / 25 °C)
Viscosity, kinematic	:	no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	Keep away from heat and sources of ignition. Take precautionary measures against static discharges.
Incompatible materials	:	Incompatible with oxidizing agents. Strong acids and strong bases
Hazardous decomposition products	:	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Skin contact
Eye contact
Inhalation
Ingestion

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: 4,224 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 12.44 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: 1,305 mg/kg Method: Calculation method

Components:

Xylene:

Acute oral toxicity	:	LD50 (Rat, male and female): 3523 - > 4000 mg/kg Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral) GLP: no Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	:	LC50 (Rat, male): 27.571 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Directive 67/548/EEC, Annex V, B.2. GLP: No information available. Assessment: The component/mixture is moderately toxic after short term inhalation.
Acute dermal toxicity	:	Other (Rabbit, male): > 4,200 mg/kg Method: Other GLP: No information available. Assessment: The component/mixture is moderately toxic after single contact with skin.

Ethylbenzene:

Acute oral toxicity	:	LD50 (Rat, male and female): ca. 3,500 mg/kg Method: Other GLP: no

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Coco dimethyl benzyl ammonium chloride:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity : Assessment: The component/mixture is moderately toxic after single contact with skin.

Toluene:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Symptoms: Vomiting, Stomach/intestinal disorders

Acute inhalation toxicity : (Rat): > 20 mg/l
Exposure time: 4 h
Target Organs: Lungs, Respiratory system, Liver, Kidney, Nervous system
Symptoms: Lung oedema, Breathing difficulties, Vomiting, Pain, Dizziness

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

Mercaptoacetic acid:

Acute oral toxicity : LD50 (Rat, male and female): 73 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: The component/mixture is toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit, male and female): 848 mg/kg
Method: OECD Test Guideline 402
GLP: no

Methanol:

Acute oral toxicity : LD50 (Rat, male and female): 1,187 - 2,769 mg/kg
Method: Other
GLP: no
Assessment: The component/mixture is toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat, male and female): 87.5 mg/l
Exposure time: 6 h
Test atmosphere: vapour
Method: Other
GLP: no
Assessment: The component/mixture is toxic after short term inhalation.

Acute dermal toxicity : Assessment: The component/mixture is toxic after single

contact with skin.

Skin corrosion/irritation

Components:

Xylene:

Species: Rabbit
Method: Other
Result: Irritating to skin.
GLP: No information available.

Ethylbenzene:

Species: Rabbit
Method: Other
Result: slight irritation
GLP: no

Proprietary ingredient 3315:

Result: Irritating to skin.

Coco dimethyl benzyl ammonium chloride:

Result: Causes burns.

Toluene:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Skin irritation

Mercaptoacetic acid:

Result: Causes severe burns.

Methanol:

Species: Rabbit
Exposure time: <= 20 h
Method: Other
Result: No skin irritation
GLP: no

Serious eye damage/eye irritation

Components:

Xylene:

Species: rabbit eye
Result: Irritating to eyes.
Method: Other
GLP: No information available.

Ethylbenzene:

Species: rabbit eye
Result: slight irritation
Method: Other
GLP: no

Proprietary ingredient 3315:

Result: Irritating to eyes.

Toluene:

Species: rabbit eye
Result: slight irritation
Assessment: No eye irritation
Method: OECD Test Guideline 405

Mercaptoacetic acid:

Species: Rabbit
Result: Risk of serious damage to eyes.
Method: Directive 67/548/EEC, Annex V, B.5.

Benzenesulfonic acid, C10-16-alkyl derivs.:

Result: Irritating to eyes.

Methanol:

Species: Rabbit
Result: No eye irritation
Method: Other
GLP: no

Respiratory or skin sensitisation

Components:

Xylene:

Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Method: OECD Test Guideline 429
Result: Not a skin sensitizer.
GLP: No information available.

Ethylbenzene:

Remarks: not required

Toluene:

Exposure routes: Skin contact
Species: Rat
Result: Does not cause skin sensitisation.

Mercaptoacetic acid:

Remarks: no data available

Methanol:

Test Type: Maximisation Test
Exposure routes: Dermal
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Not a skin sensitizer.
GLP: no

Assessment: Toxic if swallowed, in contact with skin or if inhaled.

Germ cell mutagenicity

Components:

Xylene:

Genotoxicity in vitro : Test Type: sister chromatid exchange assay
Test system: Chinese hamster ovary cells
Concentration: 5 - 50 µg/ml
Metabolic activation: with and without metabolic activation
Method: Other
Result: negative
GLP: No information available.

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Concentration: 15,1 - 100,5 µg/ml
Metabolic activation: with and without metabolic activation
Method: Directive 84/449/EEC, B.10
Result: negative
GLP: No information available.

Genotoxicity in vivo : Test Type: dominant lethal test
Species: Mouse (male and female)
Strain: Other
Application Route: Subcutaneous
Exposure time: single injection
Dose: 1 ml/kg
Method: OECD Test Guideline 478
Result: negative
GLP: no

Germ cell mutagenicity - Assessment : It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.

Ethylbenzene:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells

Concentration: 75 - 125 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: no

Test Type: In vitro gene mutation study in mammalian cells
Test system: mouse lymphoma cells
Concentration: 4,2 - 1060 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Strain: NMRI
Cell type: Bone marrow
Application Route: oral (gavage)
Exposure time: 24 - 48 h
Dose: 187,5-375-750 mg/kg
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Test Type: unscheduled DNA synthesis assay
Species: Mouse (male and female)
Strain: B6C3F1
Application Route: Inhalation
Exposure time: 6 h
Dose: 375-500-750-1000 ppm
Method: OECD Test Guideline 486
Result: negative
GLP: yes

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects, In vivo tests did not show mutagenic effects

Toluene:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: Regulation (EC) No. 440/2008, Annex, B.13/14 (Ames test)
Result: negative

Test Type: gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Cytogenetic assay

Species: Rat
Method: Other
Result: negative

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

In vivo tests did not show mutagenic effects

Mercaptoacetic acid:

Genotoxicity in vitro : Test Type: In vitro gene mutation study in bacteria
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro gene mutation study in mammalian cells
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: Regulation (EC) No. 440/2008, Annex, B.17
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male)
Strain: Switzerland
Application Route: Dermal
Dose: 1000, 500, 250 mg/kg
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Test Type: Micronucleus test
Species: Mouse (female)
Strain: Switzerland
Application Route: Dermal
Dose: 500, 250, 125 mg/kg
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects, In vivo tests did not show mutagenic effects

Methanol:

Genotoxicity in vitro : Test Type: Micronucleus test
Test system: Chinese hamster lung cells
Concentration: 40 mg/ml
Method: Other
Result: negative
GLP: No information available.

Test Type: HGPRT assay
Test system: Chinese hamster lung cells
Concentration: 15,8 - 63,3 mg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: No information available.

Test Type: In vitro gene mutation study in bacteria
Test system: Salmonella typhimurium
Concentration: 5 - 5000 µg/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: No information available.

Genotoxicity in vivo : Test Type: Chromosome Aberration Test
Species: Mouse (male)
Strain: C57BL/6 x DBA/2
Application Route: Inhalation
Exposure time: 5 d, 6 h/day
Dose: 1,04 - 5,3 mg/l
Method: Other
Result: negative
GLP: No information available.

Germ cell mutagenicity - Assessment : It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.

Carcinogenicity

Components:

Xylene:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Ethylbenzene:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Toluene:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Mercaptoacetic acid:

Species: Mouse, (female)
Application Route: Dermal
Dose: 1% and 2% in acetone
Method: Other
Result: negative
GLP: no
Remarks: By analogy with a product of similar composition

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Cumene:

Carcinogenicity - Assessment : Suspected human carcinogens

Methanol:

Species: Rat, (male and female)
Application Route: Inhalation
Exposure time: 24
Dose: 0,013 - 0,13 - 1,3 mg/l
Group: yes
Frequency of Treatment: 20 h/day
NOAEL: >= 1.3 mg/l
Method: OECD Test Guideline 453
GLP: No information available.

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

IARC	Group 2B: Possibly carcinogenic to humans	
	Ethylbenzene	100-41-4
	Cumene	98-82-8
OSHA	Carcinogen	
	Ethylbenzene	100-41-4
	Cumene	98-82-8
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.	

Reproductive toxicity

Components:

Xylene:

Effects on fertility	:	Test Type: Two-generation study Species: Rat, male and female Application Route: Inhalation Dose: 25 - 100 - 500 ppm Duration of Single Treatment: 6 h General Toxicity - Parent: NOAEL: >= 2.171 mg/l General Toxicity F1: NOAEL: >= 2.171 mg/l General Toxicity F2: NOAEL: >= 2.171 mg/l Method: Other GLP: No information available. Remarks: By analogy with a product of similar composition
Effects on foetal development	:	Test Type: Two-generation study Species: Rat Application Route: Inhalation Dose: 100 - 500 - 1000 ppm Developmental Toxicity: NOAEL: 342 mg/kg body weight Method: OPPTS 870.3800 GLP: No information available. Remarks: Based on available data, the classification criteria are not met.
Reproductive toxicity - Assessment	:	Classification as "toxic for reproduction" is not justifiable. Classification as "teratogenic" is not justifiable.

Ethylbenzene:

Effects on fertility	:	Test Type: Two-generation study Species: Rat, male and female Strain: Sprague-Dawley Application Route: Inhalation Dose: 25 - 100 - 500 ppm Duration of Single Treatment: 6 h General Toxicity - Parent: NOAEL: 2.21 mg/l General Toxicity F1: NOAEL: 2.21 mg/l General Toxicity F2: NOAEL: 2.21 mg/l Method: OECD Test Guideline 416 GLP: yes
Effects on foetal development	:	Test Type: Fertility/early embryonic development Species: Rat Strain: Sprague-Dawley Application Route: Inhalation Dose: 100-500-1000-2000 ppm Duration of Single Treatment: 15 d General Toxicity Maternal: 500 Teratogenicity: 2,000 Developmental Toxicity: 500 Method: OECD Test Guideline 414 GLP: No information available.
Reproductive toxicity - Assessment	:	No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

Toluene:

Reproductive toxicity - Assessment : Some evidence of adverse effects on development, based on animal experiments.

Mercaptoacetic acid:

Effects on fertility : Test Type: One generation study
Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: oral (gavage)
Dose: 0, 20, 40 or 80 mg/kg/day
General Toxicity - Parent: NOEL: 20 mg/kg body weight
General Toxicity F1: NOEL: 40 mg/kg body weight
Method: OECD Test Guideline 421
GLP: yes
Remarks: By analogy with a product of similar composition

Effects on foetal development : Test Type: Pre-natal
Species: Rat
Strain: wistar
Application Route: oral (gavage)
Dose: 3, 15 and 75 mg/kg
General Toxicity Maternal: NOAEL: 15 mg/kg body weight
Developmental Toxicity: NOAEL: 75 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: By analogy with a product of similar composition

Test Type: Pre-natal
Species: Rat
Strain: Sprague-Dawley
Application Route: Dermal
Dose: 50, 100 or 200 mg//day
General Toxicity Maternal: NOAEL: < 50 mg/kg body weight
Developmental Toxicity: NOAEL: >= 100 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: By analogy with a product of similar composition

Test Type: Pre-natal
Species: Rabbit
Strain: New Zealand white
Application Route: Dermal
Dose: 10, 15, 25 or 65 mg/kg/day
General Toxicity Maternal: NOAEL: >= 65 mg/kg body weight
Developmental Toxicity: NOAEL: >= 65 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: By analogy with a product of similar composition

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

Methanol:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: Inhalation
Dose: 0,013 - 0,13 - 1,3 mg/l
Duration of Single Treatment: 20 h
General Toxicity - Parent: NOAEC: 1.3 mg/l
General Toxicity F1: NOAEC: 0.13 mg/l
General Toxicity F2: NOAEC: 0.13 mg/l
Method: OECD Test Guideline 416
GLP: No information available.

Effects on foetal development : Test Type: Pre-natal
Species: Rat, female
Strain: Sprague-Dawley
Application Route: Inhalation
Dose: 0,27 - 1,33 - 6,65 mg/l
Duration of Single Treatment: 22.7 h
General Toxicity Maternal: NOAEC: 1.33 mg/l
Teratogenicity: NOAEC F1: 1.33 mg/l
Method: OECD Test Guideline 414
GLP: No information available.

Test Type: Pre-natal
Species: Rat
Strain: Long-Evans
Application Route: oral (gavage)
Dose: 1027 - 2054 - 4108 mg/kg
Frequency of Treatment: 1
General Toxicity Maternal: LOAEL: 1,027 mg/kg body weight
Teratogenicity: LOAEL F1: 1,027 mg/kg body weight
Method: OECD Test Guideline 414
GLP: No information available.

Reproductive toxicity - Assessment : No reproductive toxicity to be expected.
No teratogenic effects to be expected.

STOT - single exposure

Components:

Xylene:

Exposure routes: Inhalation
Assessment: May cause respiratory irritation.

Ethylbenzene:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Toluene:

Assessment: May cause drowsiness or dizziness.

Mercaptoacetic acid:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Cumene:

Assessment: May cause respiratory irritation.

Methanol:

Target Organs: Eyes, Central nervous system
Assessment: Causes damage to organs.

STOT - repeated exposure

Components:

Xylene:

Target Organs: Kidney, Liver, Central nervous system
Assessment: May cause damage to organs through prolonged or repeated exposure.

Ethylbenzene:

Target Organs: hearing organs
Assessment: May cause damage to organs through prolonged or repeated exposure.

Toluene:

Assessment: May cause damage to organs through prolonged or repeated exposure.

Mercaptoacetic acid:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Methanol:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

Xylene:

Species: Rat, male and female
NOAEL: 250 mg/kg
Application Route: oral (gavage)
Exposure time: 103 w
Number of exposures: Once daily (5 days/week).
Dose: 250 - 500 mg/kg
Group: yes
Method: Other

GLP: No information available.

Species: Rat, male and female
NOAEL: 150 mg/kg
LOAEL: 150 mg/kg
Application Route: oral (gavage)
Exposure time: 90 d
Number of exposures: once daily
Dose: 150 - 750 - 1500 mg/kg
Group: yes
Method: OECD Test Guideline 408
GLP: No information available.

Species: Rat, male
NOAEL: >= 3.515 mg/l
Application Route: Inhalation
Exposure time: 13 w
Number of exposures: 6 hours/day, 5 days/week
Dose: 781 - 1996 - 3515 mg/m3
Group: yes
Method: Other
GLP: No information available.

Application Route: Skin contact
Remarks: This information is not available.

Ethylbenzene:

Species: Rat, male and female
NOAEL: 75 mg/kg
Application Route: oral (gavage)
Exposure time: 3 m
Number of exposures: twice daily
Dose: 75 - 250 - 750 mg/kg
Group: yes
Method: OECD Test Guideline 408
GLP: yes

Species: Rat, male and female
NOAEL: 0.33 - 1.1 mg/l
Application Route: Inhalation
Exposure time: 2 a
Number of exposures: 6 hours/day, 5 days/week
Dose: 75 - 250 - 750 ppm
Group: yes
Method: OECD Test Guideline 453
GLP: yes

Application Route: Skin contact
Remarks: This information is not available.

Toluene:

Target Organs: Liver, Nervous system

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Remarks: no data available

Mercaptoacetic acid:

Species: Rat, male and female
NOEL: 7 mg/kg
NOAEL: 20 mg/kg
LOAEL: 60 mg/kg
Application Route: oral (gavage)
Exposure time: 13 weeks
Number of exposures: 7 days/week
Dose: 7, 20, 60 mg/kg bw/d
Method: OECD Test Guideline 408
GLP: yes
Remarks: By analogy with a product of similar composition

Species: Rat, male and female
NOAEL: >= 180 mg/kg
LOAEL: 11.25 mg/kg
Application Route: Dermal
Exposure time: 13 weeks
Number of exposures: 5 times/week
Dose: 11.25,22.5,45,90,180mg/kg bw/d
Method: OECD Test Guideline 411
Remarks: By analogy with a product of similar composition

Methanol:

Species: Monkey, male
LOAEL: 2,340 mg/kg
Application Route: oral (gavage)
Exposure time: 3 d
Number of exposures: daily
Dose: 2340 mg/kg
Group: no data available
Method: Other
GLP: No information available.
Remarks: Significant toxicity observed in testing

Species: Rat, male and female
NOEL: 0.13 mg/l
LOAEL: 1.3 mg/l
Application Route: Inhalation
Test atmosphere: vapour
Exposure time: 12 m
Number of exposures: 20 h/day
Dose: 0,013 - 0,13 - 1,3 mg/l
Group: yes
Method: OECD Test Guideline 453
GLP: No information available.

Species: Rat, male and female

NOAEL: 6.66 mg/l
Application Route: Inhalation
Test atmosphere: vapour
Exposure time: 4 w
Number of exposures: 6 h/d, 5 d/wk
Dose: 0,663 - 2,65 - 6,63 mg/l
Group: yes
Method: OECD Test Guideline 412
GLP: No information available.

Application Route: Skin contact
Remarks: not tested.

Repeated dose toxicity - Assessment : Toxic if swallowed, in contact with skin or if inhaled.

Aspiration toxicity

Components:

Xylene:
May be fatal if swallowed and enters airways.

Ethylbenzene:
May be fatal if swallowed and enters airways.

Toluene:
May be fatal if swallowed and enters airways.

Mercaptoacetic acid:
No aspiration toxicity classification

Cumene:
May be fatal if swallowed and enters airways.

Methanol:
No aspiration toxicity classification

Experience with human exposure

Product:

General Information : The possible symptoms known are those derived from the labelling (see section 2).

Further information

Components:

Toluene:

Remarks: Inhalation of vapours is irritating to the respiratory system, may cause throat pain and cough.
Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Ingestion or inhalation of high concentrations may cause injuries to gastrointestinal tract, liver, kidneys and central nervous system.
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Poisoning by resorption through skin possible.
Has a degreasing effect on the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Xylene:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 2.6 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 203 GLP: No information available. Remarks: By analogy with a product of similar composition
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): ca. 1 mg/l Exposure time: 24 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: No information available. Remarks: By analogy with a product of similar composition
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (microalgae)): 4.36 mg/l End point: Growth rate Exposure time: 73 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes Remarks: By analogy with a product of similar composition EC50 (Pseudokirchneriella subcapitata (green algae)): 2.2 mg/l End point: Biomass Exposure time: 73 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.44 mg/l
Exposure time: 73 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): > 1.3 mg/l
Exposure time: 56 d
Test Type: flow-through test
Analytical monitoring: yes
Method: Other
GLP: no

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Freshwater insects): 0.96 - 1.17 mg/l
End point: Reproduction rate
Exposure time: 7 d
Test Type: semi-static test
Analytical monitoring: yes
Method: Other
GLP: no
Remarks: By analogy with a product of similar composition

Toxicity to microorganisms : EC50 (Nitrosomonas sp.): 96 mg/l
Exposure time: 24 h
Test Type: static test
Analytical monitoring: no
Method: Other
GLP: No information available.
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

EC50 (activated sludge, domestic): > 157 mg/l
End point: Bacteria toxicity (respiration inhibition)
Exposure time: 3 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 209
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

Toxicity to soil dwelling organisms : Remarks: Not applicable

Plant toxicity	:	EC50: ca. > 1 mg/kg >1 milligram per kilogram Exposure time: 14 d End point: Growth Species: Lactuca sativa (lettuce) Analytical monitoring: yes Method: OECD Guide-line 208 GLP: No information available. Remarks: By analogy with a product of similar composition
Sediment toxicity	:	Remarks: Not applicable
Toxicity to terrestrial organisms	:	Remarks: Not applicable

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.

Ethylbenzene:

Toxicity to fish	:	LC50 (Menidia menidia (Atlantic silverside)): 5.1 mg/l Exposure time: 96 h Test Type: flow-through test Analytical monitoring: yes Method: Other GLP: yes LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l Exposure time: 96 h Test Type: flow-through test Analytical monitoring: yes Method: OECD Test Guideline 203 GLP: No information available.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1.8 - 2.4 mg/l Exposure time: 48 h Test Type: static test Analytical monitoring: yes Method: EPA GLP: no LC50 (Mysidopsis bahia (opossum shrimp)): 2.6 mg/l Exposure time: 96 h Test Type: flow-through test Analytical monitoring: yes Method: EPA GLP: yes
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (microalgae)): 3.6 mg/l End point: Biomass Exposure time: 96 h Test Type: static test Analytical monitoring: yes

Method: EPA
GLP: yes

EC50 (Skeletonema costatum (marine diatom)): 7.7 mg/l
End point: Biomass
Exposure time: 96 h
Test Type: static test
Analytical monitoring: yes
Method: EPA
GLP: yes

Toxicity to fish (Chronic toxicity) : Chronic Toxicity Value (Fish): 1.13 mg/l
Exposure time: 30 d
Analytical monitoring: no
Method: Expert judgement
GLP: no

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Ceriodaphnia spec.): 0.96 mg/l
End point: Reproduction rate
Exposure time: 7 d
Test Type: semi-static test
Analytical monitoring: yes
Method: Other
GLP: no

Toxicity to microorganisms : EC50 (Nitrosomonas sp.): 96 mg/l
Exposure time: 24 h
Test Type: static test
Analytical monitoring: no
Method: Other
GLP: no
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): 0.047 mg/cm2
Exposure time: 48 h
End point: mortality
Method: OECD Test Guideline 207
GLP: no

Plant toxicity : Remarks: Not applicable

Sediment toxicity : Remarks: Not applicable

Toxicity to terrestrial organisms : Remarks: Not applicable

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Coco dimethyl benzyl ammonium chloride:

Ecotoxicology Assessment

Acute aquatic toxicity	:	Very toxic to aquatic life.

Toluene:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 5.5 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Ceriodaphnia dubia (water flea)): 3.78 mg/l Exposure time: 48 h Test Type: semi-static test Method: EPA
Toxicity to algae/aquatic plants	:	EC50 (Chlorella vulgaris (Fresh water algae)): 134 mg/l Exposure time: 3 h Test Type: static test Method: Other
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus kisutch (coho salmon)): 1.39 mg/l Exposure time: 40 d Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Ceriodaphnia spec.): 0.74 mg/l End point: Reproduction rate Exposure time: 7 d Test Type: semi-static test Method: Other
Toxicity to microorganisms	:	NOEC (Pseudomonas putida): 29 mg/l Exposure time: 16 h
Toxicity to soil dwelling organisms	:	Remarks: Not applicable
Plant toxicity	:	Remarks: Not applicable
Sediment toxicity	:	Remarks: Not applicable
Toxicity to terrestrial organisms	:	Remarks: Not applicable

Mercaptoacetic acid:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l End point: mortality Exposure time: 96 h Test Type: flow-through test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other	:	EC50 (Daphnia magna (Water flea)): 38 mg/l

aquatic invertebrates		End point: Immobilization Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (algae)): 13 mg/l End point: Biomass Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes EC50 (Pseudokirchneriella subcapitata (algae)): 27 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes
Toxicity to fish (Chronic toxicity)	:	Remarks: no data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: no data available
Toxicity to microorganisms	:	EC50 (activated sludge): 530 mg/l Exposure time: 3 h Test Type: static test Method: OECD Test Guideline 209 GLP: yes Remarks: By analogy with a product of similar composition NOEC (activated sludge): 32 mg/l Exposure time: 3 h Test Type: static test Method: OECD Test Guideline 209 GLP: yes Remarks: By analogy with a product of similar composition

Cumene:

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.

Methanol:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l End point: mortality Exposure time: 96 h Test Type: flow-through test Analytical monitoring: yes

Method: EPA
GLP: No information available.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 18,260 mg/l
End point: Immobilization
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: no data available
Method: OECD Test Guideline 202
GLP: No information available.
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (microalgae)): ca. 22,000 mg/l
End point: Growth rate
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no data available
Method: OECD Test Guideline 201
GLP: No information available.

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 446.7 mg/l
Exposure time: 28 d
Method: Other
GLP: no
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 208 mg/l
End point: Reproduction rate
Exposure time: 21 d
Method: calculated
GLP: no
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to microorganisms : IC50 (activated sludge): > 1,000 mg/l
End point: Bacteria toxicity (growth inhibition)
Exposure time: 3 h
Test Type: aquatic
Analytical monitoring: yes
Method: OECD Test Guideline 209
GLP: No information available.

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1 mg/cm2
Exposure time: 48 h
End point: mortality
Method: OECD Test Guideline 207
GLP: No information available.

NOEC (Folsomia candida): 10000 mg/kg dry weight (d.w.)
Exposure time: 28 d
End point: mortality
Method: Other
GLP: No information available.

Plant toxicity : IC50: ca. 41,000 mg/l
Exposure time: 3 d
End point: emergence
Species: Lactuca sativa (lettuce)
Analytical monitoring: no data available
Method: Other
GLP: no

Sediment toxicity : Remarks: Not applicable

Persistence and degradability

Components:

Xylene:

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Concentration: 41 mg/l
BOD in % of theoretical OD
Result: Readily biodegradable.
Biodegradation: 87.8 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: yes

Ethylbenzene:

Biodegradability : aerobic
Inoculum: activated sludge
Concentration: 22 mg/l
Dissolved organic carbon (DOC)
Result: Readily biodegradable.
Biodegradation: 70 - 80 %
Exposure time: 28 d
Method: ISO/DIS 14853
GLP: yes

Photodegradation : Test Type: air
Concentration: 500000 molecule/cm³
Rate constant: 7,1E-12 cm³/(molecule*sec)
Degradation (indirect photolysis): 50 % Degradation half life: 2.3 d
GLP: No information available.

Toluene:

Biodegradability : aerobic
Result: Readily biodegradable.

Biodegradation: 86 %
Exposure time: 20 d

Physico-chemical removability : Remarks: Biodegradable

Mercaptoacetic acid:

Biodegradability : aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 67 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Methanol:

Biodegradability : aerobic
Inoculum: activated sludge
Concentration: 3 - 10 mg/l
Biochemical Oxygen Demand (BOD)
Result: Readily biodegradable.
Biodegradation: 95 %
Exposure time: 20 d
Method: Closed Bottle test
GLP: no

aerobic
Inoculum: activated sludge
Concentration: 4 - 200 g/l
Biochemical Oxygen Demand (BOD)
Result: Readily biodegradable.
Biodegradation: 82.7 %
Exposure time: 5 d
Method: Other
GLP: no

Photodegradation : Rate constant: 9.32E-13 cm3/s
Degradation (indirect photolysis): 50 % Degradation half life: 17.2 d
GLP: no

Bioaccumulative potential

Components:

Xylene:

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)
Bioconcentration factor (BCF): 7.2 - 25.9
Exposure time: 56 d
Concentration: 0.36 - 0.74 mg/l
Method: Other
GLP: No information available.

Ethylbenzene:

Bioaccumulation : Species: Oncorhynchus kisutch (coho salmon)
Bioconcentration factor (BCF): 1
Exposure time: 42 d
Concentration: 0.005 mg/l
Method: Other
GLP: No information available.

Toluene:

Bioaccumulation : Bioconcentration factor (BCF): 90
Remarks: Does not bioaccumulate.

Mercaptoacetic acid:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-octanol/water : log Pow: -2.99 (72 °F / 22 °C)
pH: 7
Method: OECD Test Guideline 107

Methanol:

Bioaccumulation : Species: Leuciscus idus (Golden orfe)
Bioconcentration factor (BCF): < 10
Exposure time: 72 h
Method: Other
GLP: No information available.

Partition coefficient: n-octanol/water : log Pow: -0.77
Method: No information available.
GLP: No information available.

Mobility in soil

Components:

Xylene:

Distribution among environmental compartments : Adsorption/Soil
Medium: water - soil
log Koc: 2.73
Method: OECD Test Guideline 121

Ethylbenzene:

Distribution among environmental compartments : Adsorption/Soil
log Koc: 2.71
Method: estimated

Toluene:

Distribution among environmental compartments : Remarks: The product evaporates readily.

Methanol:

Distribution among environmental compartments	:	Adsorption/Soil Medium: water - soil Koc: 1 Method: other (calculated)

Other adverse effects

Product:

Additional ecological information	:	No data is available on the product itself.

Components:

Xylene:

Environmental fate and pathways	:	not available
Results of PBT and vPvB assessment	:	The substance is not identified as a PBT or as a vPvB substance.
Additional ecological information	:	Do not allow to enter ground water, waterways or waste water.

Ethylbenzene:

Environmental fate and pathways	:	not available
Results of PBT and vPvB assessment	:	The substance is not identified as a PBT or as a vPvB substance.
Additional ecological information	:	The product should not be allowed to enter drains, water courses or the soil.

Toluene:

Results of PBT and vPvB assessment	:	This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
Additional ecological information	:	The product should not be allowed to enter drains, water courses or the soil.

Methanol:

Environmental fate and pathways	:	not available
Results of PBT and vPvB assessment	:	This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
Additional ecological	:	Do not allow to enter ground water, waterways or waste water.

information

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act	:	This material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations
Waste Code	:	D001, D002
Waste from residues	:	Dispose of this product in accordance with all applicable local, state and federal regulations.
Contaminated packaging	:	Contaminated packaging material should be treated equivalent to residual chemicals. Clean packaging material should be subjected to waste management schemes (recovery recycling, reuse) according to local legislation.

SECTION 14. TRANSPORT INFORMATION

DOT Regulation:

UN/NA-number:	UN 2920
Proper shipping name:	Corrosive liquids, flammable, n.o.s.
Technical Name:	COCOSDIMETHYLBENZYLAMMONIUMCHLORIDE Xylene Ethylbenzene
Primary hazard class:	8
Subsidiary hazard class:	3
Packing group:	II
Reportable Quantity:	59.698 kg Xylene 5,969.757 kg Ethylbenzene
Emergency Response Guide:	132

IATA

UN/ID number:	UN 2920
Proper shipping name:	Corrosive liquid, flammable, n.o.s.
Hazard inducer(s):	COCOSDIMETHYLBENZYLAMMONIUMCHLORIDE Xylene Ethylbenzene
Primary risk:	8
Subsidiary risk:	3
Packing group:	II

Remarks: Shipment permitted

IMDG

UN no.: UN 2920
Proper shipping name: Corrosive liquid, flammable, n.o.s.
Hazard inducer(s): COCOSDIMETHYLBENZYLAMMONIUMCHLORIDE
Xylene
Ethylbenzene

Primary risk: 8
Subsidiary risk: 3
Packing group: II
Marine pollutant: Marine Pollutant
EmS: F-E S-C

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Xylene	1330-20-7	100	131
Ethylbenzene	100-41-4	1000	13149
Toluene	108-88-3	1000	*
Cumene	98-82-8	5000	*
Methanol	67-56-1	5000	*
Sulphuric acid	7664-93-9	1000	*
Sulphuric acid	7664-93-9	100	(D002)*

*: Calculated RQ exceeds reasonably attainable upper limit.
A characteristic waste RQ of 100 lbs applies to this product in a waste form: D001, D002

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulphuric acid	7664-93-9	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Respiratory or skin sensitisation
Carcinogenicity
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Xylene	1330-20-7	>= 70 - < 90 %
Ethylbenzene	100-41-4	>= 5 - < 10 %
Toluene	108-88-3	>= 1 - < 5 %
Cumene	98-82-8	>= 0.1 - < 1 %

Clean Water Act

This product contains the following priority pollutants related to the U.S. Clean Water Act:, Ethylbenzene, Toluene
This material contains an oil as defined by the Clean Water Act. Per 40 CFR 110, a discharge of this material to a surface water may be reportable to the National Response Center (1-800-424-8802).

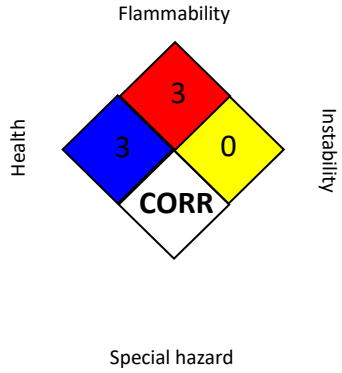
The components of this product are reported in the following inventories:

TSCA : All components are compliant with the TSCA Inventory Notification (Active) rule.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-2	:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour

		workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-2 / TWA	:	8-hour time weighted average
OSHA Z-2 / CEIL	:	Acceptable ceiling concentration
OSHA Z-2 / Peak	:	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift

AICS - Australian Inventory of Chemical Substances; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Observe all necessary precautions for handling corrosive liquids.
Observe all necessary precautions for handling flammable substances. Keep away from sources of heat and ignition. Smoking should be prohibited where material is being handled. Electrical grounding of equipment is required.

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