TERMUL® 5812

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	08/31/2015	400001004147	Date of first issue: 08/31/2015

SECTION 1. IDENTIFICATION

Product name : TERMUL® 5812

Manufacturer or supplier's details

Company name of supplier : Huntsman International LLC
Address : P.O. Box 4980
The Woodlands,
TX 77387
United States of America
Telephone : TechInfo: (281) 719-7780

E-mail address of person responsible for the SDS : MSDS@huntsman.com

Emergency telephone : Chemtrec: (800) 424-9300 or (703) 527-3887

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 4

Skin irritation : Category 2

Serious eye damage : Category 1

Carcinogenicity : Category 2

Acute aquatic toxicity : Category 2

Chronic aquatic toxicity : Category 2

GHS Label element

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H227 Combustible liquid.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects.

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.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
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 or doctor/ physician.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391 Collect spillage.
Storage:
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

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Solvent naphtha (petroleum), heavy arom.	64742-94-5	13 - 30
Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts	90194-26-6	13 - 30
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	13 - 30
1-Hexanol, 2-ethyl-	104-76-7	13 - 30

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact	:	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	:	None known.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	No data is available on the product itself. Carbon dioxide (CO_2)
Unsuitable extinguishing media	:	High volume water jet No data is available on the product itself.
Specific hazards during fire fighting	:	No data is available on the product itself. Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	No hazardous combustion products are known No data is available on the product itself.
Specific extinguishing methods	:	No data is available on the product itself.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

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).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Keep away from open flames, hot surfaces and sources of ignition.

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapors/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : No smoking.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Keep away from oxidizing agents.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), heavy arom.	64742-94-5	TWA	200 mg/m3 (as total hydrocarbon vapor)	ACGIH

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Respiratory protection : In the case of vapor formation use a respirator with an approved filter.

Hand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles.
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : clear

Odor : oily

Odor Threshold : No data is available on the product itself.

pH : 6.1

Melting point : -7 °C

Flash point : 66 °C
Method: Pensky-Martens closed cup

Evaporation rate : No data is available on the product itself.

Flammability (solid, gas)	:	No data is available on the product itself.
Upper explosion limit	:	No data is available on the product itself.
Lower explosion limit	:	No data is available on the product itself.
Vapor pressure	:	No data is available on the product itself.
Relative vapor density	:	No data is available on the product itself.
Relative density	:	0.98
Density	:	No data is available on the product itself.
Solubility(ies)		
Water solubility	:	No data is available on the product itself.
Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n-octanol/water	:	No data is available on the product itself.
Autoignition temperature	:	No data is available on the product itself.
Thermal decomposition	:	No data is available on the product itself.
Viscosity		
Viscosity, kinematic	:	75.4 mm2/s (40 °C)
Self-Accelerating decomposition temperature (SADT)	:	No data is available on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapors may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.
Hazardous decomposition products	:	Sulfur oxides Carbon dioxide (CO_2) Carbon monoxide Metal oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of	:	No data is available on the product itself.

exposure

Acute toxicity

Acute oral toxicity - Product : Acute toxicity estimate : 4,660 mg/kg
Method: Calculation method

Acute inhalation toxicity - Product : Acute toxicity estimate: > 10 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Ingredients:

Solvent naphtha (petroleum), heavy arom.**:**
Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**
Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**
Acute dermal toxicity : LD50 (Rabbit, male and female): 2,270 mg/kg
Method: OECD Test Guideline 402
GLP: no

1-Hexanol, 2-ethyl-**:**
Acute dermal toxicity : LD50 (Rat, male and female): > 3,000 mg/kg
Method: OECD Test Guideline 402
GLP: no

Acute toxicity (other routes of administration) : No data available

Skin corrosion/irritation

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**
Species: Rabbit
Assessment: Irritating to skin.
Method: OECD Test Guideline 404
Result: Irritating to skin.

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**
Species: Rabbit
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: Normally reversible injuries

1-Hexanol, 2-ethyl-**:**
Species: Rabbit

Assessment: Severe skin irritation
Method: OECD Test Guideline 404
Result: Irritating to skin.
GLP: no

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitization

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**
Routes of exposure: Skin
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitization.

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**
Routes of exposure: Skin
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitization.

1-Hexanol, 2-ethyl-**:**
Routes of exposure: Skin
Species: Humans
Result: Does not cause skin sensitization.

Assessment: No data available

Germ cell mutagenicity

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**
Genotoxicity in vitro : Concentration: 8 - 5000 ug/plate
Metabolic activation: with and without metabolic activation
Method: Directive 67/548/EEC, Annex V, B.13/14.
Result: negative

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**
Genotoxicity in vitro : Concentration: .5 - 100 ug/plate
Metabolic activation: with and without metabolic activation
Result: negative
GLP: yes

Concentration: .025 - 5 µg/L
Metabolic activation: with and without metabolic activation
Result: negative
GLP: yes

1-Hexanol, 2-ethyl-:
Genotoxicity in vitro : Concentration: .018 - .24 µg/L
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: no

Concentration: 1 - 1000 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Concentration: 50 - 500 µg/L
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts:
Genotoxicity in vivo : Application Route: Oral
Exposure time: 72 h
Dose: 1122 mg/kg
Method: OECD Test Guideline 474
Result: negative

Alcohols, C11-14-iso-, C13-rich, ethoxylated:
Genotoxicity in vivo : Cell type: Germ + somatic
Application Route: Intraperitoneal injection
Dose: 50 mg/kg
Result: negative
GLP: yes

Carcinogenicity

Ingredients:

Alcohols, C11-14-iso-, C13-rich, ethoxylated:
Species: Rat, (male and female)
Application Route: Oral
Exposure time: 24 month(s)
Dose: 500 mg/kg
Result: negative

1-Hexanol, 2-ethyl-:
Species: Rat, (male and female)
Application Route: Oral
Exposure time: 24 month(s)
Dose: 500 mg/kg
Frequency of Treatment: 5 daily
Method: OECD Test Guideline 453
Result: negative
Target Organs: Gastro-intestinal system

Target Organs: Brain

Target Organs: Liver

Target Organs: Kidney

Target Organs: Testes

Ingredients:

Solvent naphtha (petroleum), heavy arom.**:**

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in human studies

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH Confirmed animal carcinogen with unknown relevance to humans

Solvent naphtha (petroleum), heavy arom.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No ingredient 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

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**

Effects on fertility : Species: Rat, male and female
Application Route: Oral

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**

Species: Rat, male and female
Application Route: Dermal
Target Organs: Heart
Method: OECD Test Guideline 416

Target Organs: Liver

Target Organs: Lungs

Target Organs: Kidney

Target Organs: Testes

Species: Rat, male and female
Application Route: Oral
Target Organs: Liver
GLP: yes

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**

Effects on fetal development : Species: Rat, female
Application Route: Oral
General Toxicity Maternal: NOAEL (No observed adverse effect level): 300 mg/kg body weight
Result: No teratogenic effects.

Species: Rat, female
Application Route: Oral
General Toxicity Maternal: NOAEL (No observed adverse effect level): 2 mg/kg body weight
Result: No teratogenic effects.

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**

Species: Rat, male and female
Application Route: Dermal
Result: No teratogenic effects.

Species: Rat
Application Route: Oral
General Toxicity Maternal: NOAEL (No observed adverse effect level): > 250 mg/kg body weight
Result: No teratogenic effects.

1-Hexanol, 2-ethyl-**:**

Species: Rat, female
Application Route: Oral
General Toxicity Maternal: NOAEL (No observed adverse effect level): 130 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects.

Reproductive toxicity - Assessment : No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Repeated dose toxicity

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**
Species: Rat, male and female
NOAEL (No observed adverse effect level): 125 mg/kg/d
Application Route: Ingestion
Exposure time: 672 h
Number of exposures: 7 d
Method: Subacute toxicity

Species: Rat, male and female
NOAEL (No observed adverse effect level): 85 mg/kg/d

Application Route: Ingestion
Exposure time: 6,480 h
Number of exposures: 7 d
Method: Subchronic toxicity

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**
Species: Rat, male and female
NOAEL (No observed adverse effect level): 519 mg/kg/d
Application Route: Ingestion
Exposure time: 504 h
Method: Subacute toxicity

1-Hexanol, 2-ethyl-**:**
Species: Rat, male and female
Test atmosphere: vapor
Exposure time: 2,160 h
Number of exposures: 5 d
Method: OECD Test Guideline 413
Remarks: see user defined free text

Species: Rat
No-observed-effect level: 125 mg/kg
Application Route: Ingestion
Exposure time: 13 Weeks
Number of exposures: 5 d
Method: Subchronic toxicity

Repeated dose toxicity - Assessment : No data available

Aspiration toxicity

Ingredients:

Solvent naphtha (petroleum), heavy arom.**:**
May be fatal if swallowed and enters airways.

Experience with human exposure

General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Solvent naphtha (petroleum), heavy arom.:

Toxicity to fish : LC50: 2.34 mg/l
Exposure time: 96 h

LC50: 19 mg/l
Exposure time: 96 h

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts:

Toxicity to fish : LC50: > 1 - < 10 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Alcohols, C11-14-iso-, C13-rich, ethoxylated:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1.3 mg/l
Exposure time: 96 h
Test substance: Fresh water
Method: OECD Test Guideline 203

1-Hexanol, 2-ethyl-:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 17.1 mg/l
Exposure time: 96 h
Test Type: flow-through test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.1.
GLP: yes

Ingredients:

Solvent naphtha (petroleum), heavy arom.:

Toxicity to daphnia and other aquatic invertebrates : EC50: 0.95 mg/l
Exposure time: 48 h

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.9 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1.9 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water

1-Hexanol, 2-ethyl-**:**

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 39 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: Directive 67/548/EEC, Annex V, C.2. GLP: yes

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**

Toxicity to algae	:	EC50 (Selenastrum capricornutum (green algae)): 29 mg/l Exposure time: 96 h Test Type: static test

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**

Toxicity to algae	:	ErC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 2.2 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water

1-Hexanol, 2-ethyl-**:**

Toxicity to algae	:	ErC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 11.5 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: Directive 67/548/EEC, Annex V, C.3. GLP: yes IC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 11.5 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: Directive 67/548/EEC, Annex V, C.3. GLP: yes IC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 11.5 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: Directive 67/548/EEC, Annex V, C.3. GLP: yes
M-Factor (Acute aquatic toxicity)	:	No data available

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts:

Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 0.23 mg/l Exposure time: 72 d Test Type: flow-through test

Alcohols, C11-14-iso-, C13-rich, ethoxylated:

Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): 0.88 mg/l Exposure time: 28 d Test substance: Fresh water Method: OECD Test Guideline 210

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts:

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 1.18 mg/l Exposure time: 21 d Test Type: flow-through test Test substance: Fresh water

Alcohols, C11-14-iso-, C13-rich, ethoxylated:

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EC10 (Daphnia magna (Water flea)): 0.355 mg/l Exposure time: 21 d Test substance: Fresh water Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity)	:	No data available

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts:

Toxicity to bacteria	:	EC50 (activated sludge): 550 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

Alcohols, C11-14-iso-, C13-rich, ethoxylated:

Toxicity to bacteria	:	EC50 (Pseudomonas putida): > 10 g/l Exposure time: 16.9 h Test Type: static test Test substance: Fresh water Method: DIN 38 412 Part 8

Toxicity to soil dwelling organisms	:	No data available

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts:

Plant toxicity	:	EC50: 142 mg/kg Exposure time: 336 h Test substance: Synthetic Method: Terrestrial Plants Test: Seedling Emergence and Seedling Growth Test

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**

Plant toxicity : NOEC: >= 100 mg/kg
Exposure time: 456 h
Test substance: Natural
Method: Terrestrial Plants Test: Seedling Emergence and Seedling Growth Test
GLP: yes

Sediment toxicity : No data available

Ingredients:

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**

Toxicity to terrestrial organisms : EC50: 360 mg/kg
Exposure time: 72 h
Test substance: Natural

Ecotoxicology Assessment

Acute aquatic toxicity : No data available

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

Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

Further information:
No data available

Persistence and degradability

Ingredients:

Solvent naphtha (petroleum), heavy arom.**:**

Biodegradability : Result: Not readily biodegradable.
Biodegradation: < 60 %
Exposure time: 28 d

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**

Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable.
Exposure time: 28 d
Method: OECD Test Guideline 301B

Inoculum: Soil
Concentration: .2 - 20
Result: Readily biodegradable.
Biodegradation: 70 - 99 %
Exposure time: 122 d

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 28 d

1-Hexanol, 2-ethyl-**:**

Biodegradability	:	Concentration: 100 mg/l Result: Readily biodegradable. Biodegradation: 79 - 99 % Exposure time: 14 d Method: OECD Test Guideline 301C
Biochemical Oxygen Demand (BOD)	:	No data available
Chemical Oxygen Demand (COD)	:	No data available
BOD/COD	:	No data available
ThOD	:	No data available
BOD/ThOD	:	No data available
Dissolved organic carbon (DOC)	:	No data available
Physico-chemical removability	:	No data available
Stability in water	:	No data available
Photodegradation	:	No data available
Impact on Sewage Treatment	:	No data available

Bioaccumulative potential

Ingredients:

Solvent naphtha (petroleum), heavy arom.**:**

Bioaccumulation	:	Bioconcentration factor (BCF): 159

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**

Bioaccumulation	:	Species: Pimephales promelas (fathead minnow) Bioconcentration factor (BCF): 2 - 1,000 Exposure time: 8 d Test substance: Fresh water Method: flow-through test Remarks: Bioaccumulation is unlikely.

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**

Bioaccumulation	:	Species: Pimephales promelas (fathead minnow) Bioconcentration factor (BCF): 12.7 Exposure time: 3 d Test substance: Fresh water Method: flow-through test Remarks: Does not bioaccumulate.

1-Hexanol, 2-ethyl-**:**

Bioaccumulation	:	Bioconcentration factor (BCF): 25.33

GLP: no
Remarks: Bioaccumulation is unlikely.

Bioconcentration factor (BCF): 25.33
GLP: no
Remarks: Bioaccumulation is unlikely.

Ingredients:

Solvent naphtha (petroleum), heavy arom.**:**
Partition coefficient: n-octanol/water : log Pow: 2.9 - 6.1

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**
Partition coefficient: n-octanol/water : log Pow: 2.89 (20 °C)
Method: Partition coefficient

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**
Partition coefficient: n-octanol/water : log Pow: 4.08 - 4.98

1-Hexanol, 2-ethyl-**:**
Partition coefficient: n-octanol/water : log Pow: 2.9 (25 °C)
pH: 7
Method: OECD Test Guideline 117
GLP: no

Mobility in soil

Mobility : No data available

Ingredients:

Benzenesulphonic acid, 4-C10-14-alkyl derivs., calcium salts**:**
Distribution among environmental compartments : Method: OECD Test Guideline 121
Remarks: see user defined free text

Alcohols, C11-14-iso-, C13-rich, ethoxylated**:**
Distribution among environmental compartments : Koc: 13417.89 - 34437.29.

1-Hexanol, 2-ethyl-**:**
Distribution among environmental compartments : Koc: 26.01.

Stability in soil : No data available

Other adverse effects

Environmental fate and pathways : No data available

Results of PBT and vPvB assessment : No data available

Endocrine disrupting potential : No data available

Adsorbed organic bound : No data available

halogens (AOX)

Hazardous to the ozone layer

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information - Product	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
Global warming potential (GWP)	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (HYDROCARBON NAPHTHA)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964

IMDG

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROCARBON NAPHTHA)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

DOT Classification

UN/ID/NA number	:	NA 1993
Proper shipping name	:	COMBUSTIBLE LIQUID, N.O.S. (HYDROCARBON NAPHTHA)
Class	:	CBL
Packing group	:	III
ERG Code	:	128
Marine pollutant	:	yes(HYDROCARBON NAPHTHA)

SECTION 15. REGULATORY INFORMATION

TSCA - 5(a) Significant New Use Rule List of Chemicals : Not relevant

EPCRA - Emergency Planning and Community Right-to-Know

SARA 311/312 Hazards : Acute Health Hazard
Fire Hazard

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

California Prop 65 WARNING! This product contains a chemical known in the State of California to cause cancer.

ethylene oxide	75-21-8
Naphthalene	91-20-3

WARNING: This product contains a chemical known in the

State of California to cause birth defects or other reproductive harm.

ethylene oxide 75-21-8

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

TSCA : On TSCA Inventory
DSL : All components of this product are on the Canadian DSL.

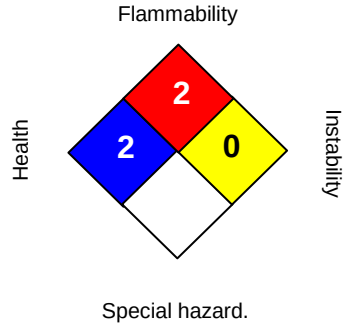
Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

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While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE. THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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