SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : SkyMark SM-V

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Hydraulic fluids

Restrictions on use : No data available

1.3. Supplier

K&M Industry LLC
5512 E Kelso St.
Tucson, AZ 85712
USA
T 520.975.7286
contact@strutwipe.com

1.4. Emergency telephone number

Emergency number : 520.975.7286

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2	H315	Causes skin irritation
Carcinogenicity Category 2	H351	Suspected of causing cancer
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Warning

Hazard statements (GHS US) : H315 - Causes skin irritation
H351 - Suspected of causing cancer
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - If on skin: Wash with plenty of water.
P308+P313 - If exposed or concerned: Get medical advice/attention.

P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)
Tributyl phosphate	CAS-No.: 126-73-8	58 – 68
Triisobutyl phosphate	CAS-No.: 126-71-6	8 – 10
Phenol, isopropylated, phosphate (3:1)	CAS-No.: 68937-41-7	5 – 10
2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate	CAS-No.: 62256-00-2	5.5 – 6.5
Triphenyl phosphate	CAS-No.: 115-86-6	1.3 – 1.9
2,6-Di-tert-butyl-p-cresol	CAS-No.: 128-37-0	0.1 – 1

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell. Rinse mouth out with water.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : No adverse effects expected.
Symptoms/effects after skin contact : Causes skin irritation.
Symptoms/effects after eye contact : May cause slight irritation.
Symptoms/effects after ingestion : Possible irritation of mucous membranes and digestive tract, nausea, vomiting.
Chronic symptoms : Suspected of causing cancer. May cause damage to organs. Suspected of damaging fertility or the unborn child.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Do not breathe mist, spray, vapors. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Collect all waste in suitable and labeled containers and dispose according to local legislation.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe mist, spray, vapors. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

SkyMark SM-V
No additional information available

Tributyl phosphate (126-73-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Tributyl phosphate
ACGIH OEL TWA	5 mg/m³ (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: Bladder, eye, & URT irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEIc
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Tributyl phosphate
OSHA PEL TWA [1]	5 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate (62256-00-2)
No additional information available

2,6-Di-tert-butyl-p-cresol (128-37-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Butylated hydroxytoluene
ACGIH OEL TWA	2 mg/m³ (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023

Triisobutyl phosphate (126-71-6)
No additional information available

Phenol, isopropylated, phosphate (3:1) (68937-41-7)
No additional information available

Triphenyl phosphate (115-86-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Triphenyl phosphate
ACGIH OEL TWA	3 mg/m³
Remark (ACGIH)	TLV® Basis: Cholinesterase inhib. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023

Triphenyl phosphate (115-86-6)	
USA - OSHA - Occupational Exposure Limits	
Local name	Triphenyl phosphate
OSHA PEL TWA [1]	3 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Oily liquid.
Color : Purple
Odor : Odorless
Odor threshold : No data available
pH : No data available
Melting point : < -62 °C
Freezing point : No data available
Boiling point : No data available
Flash point : 171 °C
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : No data available
Vapor pressure : 0.4 hPa
Relative vapor density at 20°C : No data available
Relative density : 0.9956
Solubility : No data available
Partition coefficient n-octanol/water (Log Pow) : No data available
Auto-ignition temperature : 424 °C

Decomposition temperature	:	No data available
Viscosity, kinematic	:	9.02 – 10.02 mm²/s (38 °C)
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	Not explosive.
Oxidizing properties	:	Not oxidising.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Tributyl phosphate (126-73-8)	
LD50 oral rat	1552 mg/kg
LD50 dermal rabbit	> 3100 mg/kg
LC50 Inhalation - Rat	> 4.242 mg/l
LC50 Inhalation - Rat (Dust/Mist)	> 4.242 mg/l

2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate (62256-00-2)	
LD50 oral rat	2000 mg/kg

2,6-Di-tert-butyl-p-cresol (128-37-0)	
LD50 oral rat	> 6000 mg/kg
LD50 dermal rat	> 2000 mg/kg

2,6-Di-tert-butyl-p-cresol (128-37-0)	
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 2 mg/l

Triisobutyl phosphate (126-71-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 5.14 mg/l
LC50 Inhalation - Rat (Vapours)	> 5.14 mg/l

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
LD50 oral rat	5000 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
LC50 Inhalation - Rat	> 50 mg/kg

Triphenyl phosphate (115-86-6)	
LD50 oral rat	3800 mg/kg
LD50 dermal rabbit	> 7900 mg/kg

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : Not classified

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

Aspiration hazard : Not classified

Viscosity, kinematic : 9.02 – 10.02 mm²/s (38 °C)

Symptoms/effects after inhalation : No adverse effects expected.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : May cause slight irritation.

Symptoms/effects after ingestion : Possible irritation of mucous membranes and digestive tract, nausea, vomiting.

Chronic symptoms : Suspected of causing cancer. May cause damage to organs. Suspected of damaging fertility or the unborn child.

SECTION 12: Ecological information

12.1. Toxicity

Tributyl phosphate (126-73-8)	
LC50 - Fish [1]	17 mg/l
EC50 - Crustacea [1]	3.65 mg/l (48 h, Daphnia magna, Experimental value, Nominal concentration)
EC50 - Other aquatic organisms [1]	4.6 mg/l Test organisms (species): Gammarus sp.
EC50 72h - Algae [1]	2.8 mg/l
EC50 72h - Algae [2]	2.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

Tributyl phosphate (126-73-8)	
EC50 96h - Algae [1]	1.3 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
ErC50 algae	2.8 mg/l (DIN 38412-9, 72 h, Desmodesmus subspicatus, Fresh water, Weight of evidence, Nominal concentration)
NOEC (chronic)	1.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate (62256-00-2)	
LC50 - Fish [1]	2.9 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	6.5 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	2.6 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

2,6-Di-tert-butyl-p-cresol (128-37-0)	
LC50 - Fish [1]	> 0.57 mg/l
EC50 - Crustacea [1]	0.48 mg/l
EC50 72h - Algae [1]	> 0.4 mg/l
LOEC (chronic)	1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.023 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Triisobutyl phosphate (126-71-6)	
LC50 - Fish [1]	23 mg/l
EC50 - Crustacea [1]	11 mg/l
EC50 72h - Algae [1]	14.3 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	18 mg/l Source: European chemical Substances Information System
ErC50 algae	34.1 mg/l (DIN 38412-9, 96 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
LC50 - Fish [1]	1.15 mg/l Source: International Uniform ChemicaL Information Database
EC50 - Crustacea [1]	14 mg/l Source: International Uniform ChemicaL Information Database
EC50 72h - Algae [1]	> 2.5 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	> 1000 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	> 2.5 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
ErC50 algae	> 2.5 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Selenastrum capricornutum, Static system, Fresh water, Experimental value, GLP)

Triphenyl phosphate (115-86-6)	
LC50 - Fish [1]	0.4 mg/l
LC50 - Other aquatic organisms [1]	0.18 mg/l
EC50 - Crustacea [1]	2.41 mg/l Test organisms (species): Daphnia magna

Triphenyl phosphate (115-86-6)	
EC50 72h - Algae [1]	2.45 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	3.73 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	2 mg/l (US EPA, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)
LOEC (chronic)	0.831 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.254 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

Tributyl phosphate (126-73-8)	
Persistence and degradability	Readily biodegradable in water.

2,6-Di-tert-butyl-p-cresol (128-37-0)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.51 g O_2/g substance
Chemical oxygen demand (COD)	2.27 g O_2/g substance
ThOD	2.977 g O_2/g substance

Triisobutyl phosphate (126-71-6)	
Persistence and degradability	Readily biodegradable in water.

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
Persistence and degradability	Not readily biodegradable in water.

Triphenyl phosphate (115-86-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.

12.3. Bioaccumulative potential

Tributyl phosphate (126-73-8)	
BCF - Fish [1]	5.5 – 20 (Equivalent or similar to OECD 305, 6 week(s), Cyprinus carpio, Semi-static system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

2,6-Di-tert-butyl-p-cresol (128-37-0)	
Partition coefficient n-octanol/water (Log Pow)	5.1
Bioaccumulative potential	Potential for bioaccumulation (4 ≤ Log Kow ≤ 5).

Triisobutyl phosphate (126-71-6)	
BCF - Fish [1]	16.44 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	3.72 Source: European chemical Substances Information System
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
BCF - Fish [1]	225 – 992 (OECD 305: Bioconcentration: Flow-Through Fish Test, 23 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	4.92 – 5.17 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

Triphenyl phosphate (115-86-6)	
BCF - Fish [1]	144 (Other, 18 day(s), Oryzias latipes, Flow-through system, Fresh water, Experimental value, Fresh weight)
BCF - Other aquatic organisms [1]	43 (Lemna sp., Literature study, Chronic)
Partition coefficient n-octanol/water (Log Pow)	4.59 Source: HSDB
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Tributyl phosphate (126-73-8)	
Surface tension	25.1 mN/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.241 – 3.371 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for mobility in soil.

2,6-Di-tert-butyl-p-cresol (128-37-0)	
Surface tension	Not applicable (water solubility < 1 mg/l)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4.4 (log Koc, SRC PCKOCWIN v1.66, Calculated value)
Ecology - soil	Low potential for mobility in soil. May be harmful to plant growth, blooming and fruit formation.

Triisobutyl phosphate (126-71-6)	
Mobility in soil	3.02 Source: Quantitative Structure Activity Relation
Surface tension	33 mN/m (20 °C, 90 vol %, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.14 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for mobility in soil.

Phenol, isopropylated, phosphate (3:1) (68937-41-7)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.43 – 3.93 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Low potential for mobility in soil.

Triphenyl phosphate (115-86-6)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.4 – 3.55 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
3082	UN3082	3082	3082
14.2. Proper Shipping Name			
Environmentally hazardous substances, liquid, n.o.s. (Triphenyl phosphate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triphenyl phosphate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triphenyl phosphate)	Environmentally hazardous substance, liquid, n.o.s. (Triphenyl phosphate)
14.3. Transport hazard class(es)			
9	9	9	9
			
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available			

14.6. Special precautions for user

DOT
UN-No.(DOT) : UN3082

DOT Special Provisions (49 CFR 172.102)	:	8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description “Other regulated substances, liquid or solid, n.o.s.”, as appropriate. In addition, for solid materials, special provision B54 applies. 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination. 173 - An appropriate generic entry may be used for this material. 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as “Environmentally hazardous substances, solid, n.o.s,” UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	155
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	No Limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	No Limit
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.

TDG

UN-No. (TDG)	:	UN3082

TDG Special Provisions	:	16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; (b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; (c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; (d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or (e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS,99 - (1) Mixtures of solids that are not dangerous goods and liquids or solids that are UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, may be handled, offered for transport or transported as UN3077 if there is no visible liquid when the dangerous goods are loaded into a means containment and during transport. (2) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety.
Explosive Limit and Limited Quantity Index	:	5 L
Excepted quantities (TDG)	:	E1
Emergency Response Guide (ERG) Number	:	171

IMDG

Special provision (IMDG)	:	274, 335, 969
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	LP01, P001
Packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1, TP29
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG)	:	A

IATA

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y964
PCA limited quantity max net quantity (IATA)	:	30kgG
PCA packing instructions (IATA)	:	964
PCA max net quantity (IATA)	:	450L
CAO packing instructions (IATA)	:	964
CAO max net quantity (IATA)	:	450L

Special provision (IATA) : A97, A158, A197, A215
ERG code (IATA) : 9L

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. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Tributyl phosphate (126-73-8)

Listed on the Canadian DSL (Domestic Substances List)

2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate (62256-00-2)

Listed on the Canadian DSL (Domestic Substances List)

2,6-Di-tert-butyl-p-cresol (128-37-0)

Listed on the Canadian DSL (Domestic Substances List)

Triisobutyl phosphate (126-71-6)

Listed on the Canadian DSL (Domestic Substances List)

Phenol, isopropylated, phosphate (3:1) (68937-41-7)

Listed on the Canadian DSL (Domestic Substances List)

Triphenyl phosphate (115-86-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Tributyl phosphate (126-73-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

2,6-Di-tert-butyl-p-cresol (128-37-0)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Triphenyl phosphate (115-86-6)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

Component	State or local regulations
Tributyl phosphate(126-73-8)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
2,6-Di-tert-butyl-p-cresol(128-37-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Triphenyl phosphate(115-86-6)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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

Full text of H-phrases	
H315	Causes skin irritation
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

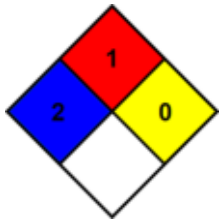
Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

Abbreviations and acronyms	
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

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

: * - Chronic (long-term) health effects may result from repeated overexposure

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.