DOLPHIN PUTTY

Safety Data Sheet DOLPTY-US-SDS

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

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SECTION 1: Identification

1.1. Identification

Product form : Mixture

Trade name : DOLPHIN PUTTY

UP Number UP0658

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fillers, putties, plasters, modeling clay

Recommended use : Fillers

1.3. Supplier

U-POL US Inc
108 Commerce Way
Easton, PA 18040 - United States
T 1-800-340-7824 - F 1-800-787-5150
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC - 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 3	Flammable liquid and vapor
Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 2	Causes serious eye irritation
Carcinogenicity Category 2	Suspected of causing cancer
Reproductive toxicity Category 2	Suspected of damaging the unborn child
Specific target organ toxicity (repeated exposure) Category 1	Causes damage to organs (hearing organs) through prolonged or repeated exposure (Inhalation)

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : Flammable liquid and vapor
Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer
Suspected of damaging the unborn child
Causes damage to organs (hearing organs) through prolonged or repeated exposure (Inhalation)

Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not breathe fume, vapors.
Avoid contact during pregnancy/while nursing.
Wear eye protection, protective gloves, protective clothing.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse first with plenty of water and if necessary take medical advice

2.3. Other hazards which do not result in classification

2.4. Unknown acute toxicity (GHS US)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
talc	(CAS-No.) 14807-96-6	23 – 43	Carc. 2, H351
styrene	(CAS-No.) 100-42-5	5 – 43	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 Repr. 2, H361 STOT SE 3, H335 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
Ethylbenzene	(CAS-No.) 100-41-4	< 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:vapour), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304
2,2'-iminodiethanol, diethanolamine	(CAS-No.) 111-42-2	< 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 2, H351 STOT RE 2, H373

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 general : IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

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

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Eye irritation.

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.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapor.

Reactivity : Flammable liquid and vapor.

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. No open flames, no sparks, and no smoking. Do not breathe vapors, spray, fume. Avoid contact with skin and eyes.

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. Notify authorities if product enters sewers or public waters.

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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, fume, spray. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

styrene (100-42-5)		
ACGIH	Local name	Styrene
ACGIH	ACGIH OEL TWA [ppm]	20 ppm
ACGIH	ACGIH OEL STEL [ppm]	40 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: CNS & hearing impair; URT irr; peripheral neuropathy; visual disorders. Notations: OTO; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [2]	100 ppm
OSHA	OSHA PEL C [ppm]	200 ppm
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	600 ppm 5 mins. in any 3 hrs.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-2

2,2'-iminodiethanol, diethanolamine (111-42-2)		
ACGIH	Local name	Diethanolamine
ACGIH	ACGIH OEL TWA	1 mg/m³ (Inhalable fraction and vapor)
ACGIH	Remark (ACGIH)	TLV® Basis: Liver & kidney dam. Notations: Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH	Regulatory reference	ACGIH 2021

talc (14807-96-6)		
ACGIH	Local name	Talc

talc (14807-96-6)		
ACGIH	ACGIH OEL TWA	2 mg/m³ (Respirable fraction. The value is for particulate matter containing no asbestos and < 1% crystalline silica)
ACGIH	ACGIH OEL TWA [ppm]	0.1 fibers/cm³ (Containing asbestos fibers. F - Respirable fibers)
ACGIH	Remark (ACGIH)	Containing no asbestos fibers = TLV® Basis: Pulm fibrosis; pulm func. Notations: A4 Containing asbestos fibers = TLV® Basis: Pneumoconiosis; lung cancer; mesothelioma. Notations: A1 (Confirmed Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [2]	20 mppcf
OSHA	Remark (OSHA)	Table Z-3. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts

Ethylbenzene (100-41-4)		
ACGIH	Local name	Ethylbenzene
ACGIH	ACGIH OEL TWA [ppm]	20 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: URT irr; kidney dam (nephropathy); cochlear impair. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [1]	435 mg/m³
OSHA	OSHA PEL (TWA) [2]	100 ppm
OSHA	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

Type	Material	Permeation	Thickness (mm)	Penetration
Protective gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR), Polyvinylalcohol (PVA), Viton	6 (> 480 minutes)	0.4	

Eye protection:

Safety glasses

Type	Field of application	Characteristics
Safety glasses	Dust	clear

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

Device	Filter type	Condition
Breathing apparatus, Gas filters	Type A - High-boiling (>65 °C) organic compounds	vapor protection

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Viscous. Liquid.
Color	:	Beige
Odor	:	aromatic
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	32 °C
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	1.35 (1.34 – 1.36) g/cm³
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
No data availableViscosity, kinematic	:	> 20.5 mm²/s
Viscosity, dynamic	:	45000 (40000 – 50000) cP
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

As Packaged Regulatory VOC	:	307 g/l (2.56 lb/gal)
As Packaged Actual VOC	:	307 g/l (2.56 lb/gal)
As Applied Regulatory VOC	:	49 g/l (0.41 lb/gal)
As Applied Actual VOC	:	49 g/l (0.41 lb/gal)
Water Content		0 wt%
Exempt Compounds by volume	:	0 vol %
Exempt Compounds by weight	:	0 wt%
Volatiles	:	20.4 wt%
% EPA HAPS	:	20.03 wt%
Percent Solids	:	79.63 wt%
Percent Solids	:	62.50 vol %

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor.

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

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

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

styrene (100-42-5)	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	11.8 mg/l (4 h, Rat, Inconclusive, insufficient data, Inhalation (vapours))
ATE US (vapors)	11.8 mg/l/4h
ATE US (dust, mist)	11.8 mg/l/4h

2,2'-iminodiethanol, diethanolamine (111-42-2)	
LD50 oral rat	1600 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
ATE US (oral)	1600 mg/kg body weight

talc (14807-96-6)	
LD50 oral rat	> 5000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 2.1 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))

Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15432 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))
ATE US (oral)	3500 mg/kg body weight
ATE US (dermal)	15432 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	17.8 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

styrene (100-42-5)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen

2,2'-iminodiethanol, diethanolamine (111-42-2)	
NOAEL (chronic,oral,animal/male,2 years)	64 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Remarks on results: other:Effect type: carcinogenicity (migrated information)
IARC group	2B - Possibly carcinogenic to humans

talc (14807-96-6)	
IARC group	3 - Not classifiable, 2B - Possibly carcinogenic to humans

Ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Suspected of damaging the unborn child.

STOT-single exposure : Not classified

styrene (100-42-5)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Causes damage to organs (hearing organs) through prolonged or repeated exposure (Inhalation).

styrene (100-42-5)	
LOAEL (oral,rat,90 days)	2000 mg/kg body weight Animal: rat
LOAEC (inhalation,rat,vapor,90 days)	0.21 mg/l air Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat
NOAEL (subchronic,oral,animal/male,90 days)	10 mg/kg body weight Animal: mouse, Animal sex: male
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

2,2'-iminodiethanol, diethanolamine (111-42-2)	
LOAEL (dermal,rat/rabbit,90 days)	32 mg/kg body weight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
NOAEC (inhalation,rat,dust/mist/fume,90 days)	0.003 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Ethylbenzene (100-41-4)	
NOAEL (oral,rat,90 days)	75 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Viscosity, kinematic : > 20.5 mm²/s

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

styrene (100-42-5)	
LC50 - Fish [1]	10 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	4.7 mg/l Test organisms (species): Daphnia magna
ErC50 algae	4.9 mg/l (EPA OTS 797.1050, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
LOEC (chronic)	2.06 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	1.01 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

2,2'-iminodiethanol, diethanolamine (111-42-2)	
LC50 - Fish [1]	460 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	30.1 mg/l Test organisms (species): Ceriodaphnia dubia
EC50 - Crustacea [2]	89.9 mg/l Test organisms (species): Ceriodaphnia dubia
ErC50 algae	9.5 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
LOEC (chronic)	1.56 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.78 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 1 mg/l Test organisms (species): other:freshwater fish

talc (14807-96-6)	
LC50 - Fish [1]	89581 mg/l (ECOSAR v1.00, 96 h, Pisces, Fresh water, QSAR)

Ethylbenzene (100-41-4)	
LC50 - Fish [1]	5.1 mg/l Test organisms (species): Menidia menidia
EC50 - Crustacea [1]	1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

12.2. Persistence and degradability

styrene (100-42-5)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Chemical oxygen demand (COD)	2.8 g O_2/g substance
ThOD	3.07 g O_2/g substance
BOD (% of ThOD)	0.42 (Literature study)

2,2'-iminodiethanol, diethanolamine (111-42-2)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.22 g O_2/g substance
Chemical oxygen demand (COD)	1.52 g O_2/g substance
ThOD	2.13 g O_2/g substance

talc (14807-96-6)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Ethylbenzene (100-41-4)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.44 g O_2/g substance
Chemical oxygen demand (COD)	2.1 g O_2/g substance
ThOD	3.17 g O_2/g substance

12.3. Bioaccumulative potential

styrene (100-42-5)	
BCF - Fish [1]	35.5 (Carassius auratus, Literature study)
Partition coefficient n-octanol/water (Log Pow)	2.96 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2,2'-iminodiethanol, diethanolamine (111-42-2)	
BCF - Fish [1]	3.162 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-2.18 – -1.43 (Experimental value)
Bioaccumulative potential	Not bioaccumulative.

talc (14807-96-6)	
BCF - Other aquatic organisms [1]	3.162 l/kg (BCFBAF v3.01, Fresh water, QSAR)
Partition coefficient n-octanol/water (Log Pow)	-9.4 (QSAR, KOWWIN, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Ethylbenzene (100-41-4)	
BCF - Fish [1]	1 (6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

styrene (100-42-5)	
Surface tension	0.032 N/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.55 (log Koc, Estimated value)
Ecology - soil	Low potential for adsorption in soil.

2,2'-iminodiethanol, diethanolamine (111-42-2)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.98 – 1 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

talc (14807-96-6)	
Ecology - soil	Adsorbs into the soil.

Ethylbenzene (100-41-4)	
Surface tension	71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.

12.5. Other adverse effects

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT) : UN1866 Resin solution (flammable), 3, III

UN-No.(DOT) : UN1866

Proper Shipping Name (DOT) : Resin solution
flammable

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

Packing group (DOT) : III - Minor Danger

Hazard labels (DOT) : 3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx) : 173

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Special Provisions (49 CFR 172.102)	:	B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T2 - 1.5 178.274(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.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	220 L
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	:	127
Other information	:	No supplementary information available.

Transportation of Dangerous Goods

Transport document description (TDG)	:	UN1866 RESIN SOLUTION (flammable), 3, III
UN-No. (TDG)	:	UN1866
Proper Shipping Name (TDG)	:	RESIN SOLUTION
TDG Primary Hazard Classes	:	3 - Class 3 - Flammable Liquids
Packing group (TDG)	:	III - Minor Danger
Explosive Limit and Limited Quantity Index	:	5 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	60 L

Transport by sea

Transport document description (IMDG)	:	UN 1866 RESIN SOLUTION, 3, III
UN-No. (IMDG)	:	1866
Proper Shipping Name (IMDG)	:	RESIN SOLUTION
Class (IMDG)	:	3 - Flammable liquids
Packing group (IMDG)	:	III - substances presenting low danger
Limited quantities (IMDG)	:	5 L

Air transport

Transport document description (IATA)	:	UN 1866 Resin solution, 3, III
UN-No. (IATA)	:	1866
Proper Shipping Name (IATA)	:	Resin solution
Class (IATA)	:	3 - Flammable Liquids
Packing group (IATA)	:	III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

styrene (100-42-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb

2,2'-iminodiethanol, diethanolamine (111-42-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb

talc (14807-96-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ethylbenzene (100-41-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

styrene (100-42-5)
Listed on the Canadian DSL (Domestic Substances List)

2,2'-iminodiethanol, diethanolamine (111-42-2)
Listed on the Canadian DSL (Domestic Substances List)

talc (14807-96-6)
Listed on the Canadian DSL (Domestic Substances List)

Ethylbenzene (100-41-4)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

styrene (100-42-5)
Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program)

2,2'-iminodiethanol, diethanolamine (111-42-2)
Listed on IARC (International Agency for Research on Cancer)

Ethylbenzene (100-41-4)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

styrene (100-42-5)					
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	27 µg/day	

2,2'-iminodiethanol, diethanolamine (111-42-2)					
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		

Ethylbenzene (100-41-4)					
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	54 µg/day (inhalation); 41 µg/day (oral)	

Component	State or local regulations
styrene(100-42-5)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; 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
2,2'-iminodiethanol, diethanolamine(111-42-2)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; 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
Ethylbenzene(100-41-4)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; 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
talc(14807-96-6)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

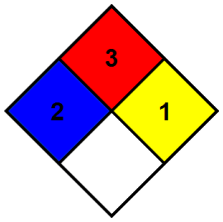
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 07/01/2021

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

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



SDS US GHS (GHS HazCom2012)

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