



Safety Data Sheet SA Vertical Bond Contact Adhesive

SDS 10-9587

Safety Data Sheet dated: 08/22/2024 - version 5
Date of first edition: 06/24/2016

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: SA Vertical Bond Contact Adhesive

Trade code: 9028253

Recommended use of the chemical and restrictions on use

Recommended use: Adhesive

Restrictions on use: Not available

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: Polyglass U.S.A. Inc.

1111 West Newport Center Drive - 33442 - Deerfield Beach - FL - USA

Phone: 866-222-9782

Responsible: RDProductSafety@mapel.com

Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887

Emergency Transport CANUTEC (Canada) 1-613-996-6666

Supplier Information:

Mule-Hide Products Co., Inc

1195 Prince Hall Dr.

Beloit, WI 53511

USA

2. HAZARD(S) IDENTIFICATION



Classification of the chemical

Flammable Liquids — Category 2

Skin irritation, Category 2

Eye irritation, Category 2A

Skin Sensitization, Category 1B

Carcinogenicity, Category 2

Specific target organ toxicity following single exposure,
Category 3

Specific target organ toxicity following repeated exposure,
Category 2

Acute aquatic hazard, category 3

Chronic (long term) aquatic hazard, category 3

Reproductive toxicity, Category 2

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing cancer if inhaled, in contact with skin and if
swallowed.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure
if inhaled, in contact with skin and if swallowed.

Harmful to aquatic life

Harmful to aquatic life with long lasting effects.

Suspected of damaging fertility. Suspected of damaging the unborn
child.

Label elements

Hazard pictograms and Signal Word



Danger

Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer if inhaled, in contact with skin and if swallowed.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H373	May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

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.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a doctor if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire, use a dry powder fire extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with applicable regulations.

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not Relevant

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

Qty	Name	Ident. Numb.	Classification	Registration Number
10-20 %	toluene; 1-Methylbenzene	CAS:108-88-3 EC:203-625-9 Index:601-021-00-3	Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3, H336; Repr. 2, H361; Aquatic Chronic 3, H412; Aquatic Acute 2, H401	01-2119471310-51-XXXX
10-20 %	tert-butyl acetate; Acetic acid, 1, 1-dimethylethyl ester	CAS:540-88-5 EC:208-760-7 Index:607-026-00-7	Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT SE 3, H335; STOT SE 3, H336	01-2119449809-22-XXXX

10-20 %	acetone; propan-2-one	CAS:67-64-1 EC:200-662-2 Index:606-001-00-8	Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336	01-2119471330-49-XXXX
10-20 %	n-hexane; hexyl hydride	CAS:110-54-3 EC:203-777-6 Index:601-037-00-0	Flam. Liq. 2, H225; Skin Irrit. 2, H315; STOT RE 2, H373; Asp. Tox. 1, H304; STOT SE 3, H336; Repr. 2, H361f; Aquatic Chronic 2, H411	01-2119480412-44-XXXX
1-2.5 %	4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride	CAS:98-56-6 EC:202-681-1	Flam. Liq. 3, H226; Carc. 2, H351; N.A. Aquatic Chronic 2, H411; Skin Sens. 1B, H317	

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- OBTAIN IMMEDIATE MEDICAL ATTENTION.
- Obtain medical attention if skin related symptoms persist.
- Remove contaminated clothing immediately and dispose of safely.
- After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

- After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

- If breathing is irregular or stopped, administer artificial respiration.
- In case of inhalation, consult a doctor immediately and show him packing or label.

Most important symptoms/effects, acute and delayed

Eye irritation
Eye damages
Skin Irritation
Erythema

Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

- In case of fire, use a dry powder fire extinguisher to extinguish.

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

- Do not inhale explosion and combustion gases.
- Burning produces heavy smoke.
- Hazardous combustion products: Not available
- Explosive properties: Not available
- Oxidizing properties: Not available

Special protective equipment and precautions for fire-fighters

- Use suitable breathing apparatus.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Wear personal protection equipment.
- Remove all sources of ignition.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.
Use appropriate respiratory protection.
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Limit leakages with earth or sand.

Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand
Retain contaminated washing water and dispose it.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Do not use on extensive surface areas in premises where there are occupants.
Use localized ventilation system.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.
Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
Store in a well-ventilated place. Keep cool.
Avoid direct exposure to sunlight.
Opened containers must be carefully resealed and kept upright to prevent leakage.
Flammable mixtures may accumulate within the headspace of containers at room temperature.
Storage at higher temperatures requires an appropriate evaluation of preventive and protection measures to be adopted.
Storage temperature must be defined on the basis of a proper risk evaluation. Refer to other sections for additional information.
Avoid accumulating electrostatic charge.
Keep away from food, drink and feed.
Electrical installations / working materials must comply with the technological safety standards.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Temperature of storage facilities must be adequately monitored to avoid hazardous conditions.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.
Safety electric system.

Storage temperature: Not available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
toluene; 1-Methylbenzene CAS: 108-88-3	EU		Long Term: 192 mg/m ³ - 50 ppm; Short Term: 384 mg/m ³ - 100 ppm Skin
	ACGIH		Long Term: 20 ppm A4, BEI - Visual impair, female repro, pregnancy loss
	MAK	GERMANY	Long Term: 190 mg/m ³ - 50 ppm
	OSHA		Long Term: 200 ppm
	ACGIH		Long Term: 20 ppm A4 - Not Classifiable as a Human Carcinogen;female reproductive damage;pregnancy loss;visual impairment
	OSHA		Short Term: Ceiling - 300 ppm
	EU		Long Term: 192 mg/m ³ - 50 ppm; Short Term: 384 mg/m ³ - 100 ppm

			Behaviour Indicative Possibility of significant uptake through the skin
	MAK	AUSTRIA	Long Term: 190 mg/m ³ - 50 ppm; Short Term: 380 mg/m ³ - 100 ppm
	MAK	SWITZERLAND	Long Term: 190 mg/m ³ - 50 ppm
tert-butyl acetate; Acetic acid, 1,1-dimethylethyl ester CAS: 540-88-5	MAK	GERMANY	Long Term: 96 mg/m ³ - 20 ppm
	OSHA		Long Term: 950 mg/m ³ - 200 ppm
	ACGIH		Long Term: 50 ppm; Short Term: 150 ppm eye and upper respiratory tract irritation (listed under Butyl acetates, all isomers)
	MAK	AUSTRIA	Long Term: 96 mg/m ³ - 20 ppm; Short Term: 96 mg/m ³ - 20 ppm
	MAK	SWITZERLAND	Long Term: 240 mg/m ³ - 50 ppm
acetone; propan-2-one CAS: 67-64-1	MAK	AUSTRIA	Short Term: Ceiling - 96 mg/m ³ - 20 ppm
	EU		Long Term: 1210 mg/m ³ - 500 ppm
	ACGIH		Long Term: 250 ppm; Short Term: 500 ppm A4, BEI - URT and eye irr, CNS impair
	MAK	GERMANY	Long Term: 1200 mg/m ³ - 500 ppm
	OSHA		Long Term: 2400 mg/m ³ - 1000 ppm
	ACGIH		Long Term: 250 ppm; Short Term: 500 ppm A4 - Not Classifiable as a Human Carcinogen; CNS impairment; eye and upper respiratory tract irritation
	MAK	AUSTRIA	Long Term: 1200 mg/m ³ - 500 ppm; Short Term: 4800 mg/m ³ - 2000 ppm
	MAK	SWITZERLAND	Long Term: 1200 mg/m ³ - 500 ppm
	EU		Long Term: 1210 mg/m ³ - 500 ppm Behaviour Indicative
n-hexane; hexyl hydride CAS: 110-54-3	MAK	GERMANY	Long Term: 180 mg/m ³ - 50 ppm
	OSHA		Long Term: 1800 mg/m ³ - 500 ppm
	ACGIH		Long Term: 50 ppm Skin - potential significant contribution to overall exposure by the cutaneous route; CNS impairment; eye irritation; peripheral neuropathy
	EU		Long Term: 72 mg/m ³ - 20 ppm Behaviour Indicative
	MAK	AUSTRIA	Long Term: 72 mg/m ³ - 20 ppm; Short Term: 288 mg/m ³ - 80 ppm
	MAK	SWITZERLAND	Long Term: 180 mg/m ³ - 50 ppm
4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride CAS: 98-56-6	MAK	GERMANY	Long Term: 1 mg/m ³
	OSHA		Long Term: 2.5 mg/m ³
	ACGIH		Long Term: 2.5 mg/m ³ "A4 - Not Classifiable as a Human Carcinogen" As Fluorides [RR-02792-9]; "bone damage; fluorosis" As Fluorides [RR-02792-9]

Biological limit values

toluene; 1-Methylbenzene Biological Indicator: Toluene; Sampling Period: Before last turn of the working week
CAS: 108-88-3 Value: 0.02 mg/L; Medium: Blood

Biological Indicator: Toluene; Sampling Period: End of turn
Value: 0.03 mg/L; Medium: Urine

Biological Indicator: O-Cresol; Sampling Period: End of turn
Value: 0.3 MGGCREAT; Medium: Urine
Remark: Background

acetone; propan-2-one CAS: 67-64-1	Biological Indicator: Acetone; Sampling Period: End of turn Value: 25 mg/L; Medium: Urine Remark: Not Specific
n-hexane; hexyl hydride CAS: 110-54-3	Biological Indicator: Hexanedione; Sampling Period: End of turn; End of working week Value: 0.4 mg/L; Medium: Urine Biological Indicator: Hexanedione; Sampling Period: End of turn Value: 0.5 mg/L; Medium: Urine
4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride CAS: 98-56-6	Biological Indicator: Fluoride; Sampling Period: Before turn Value: 2 mg/L; Medium: Urine Remark: Background; Not Specific Biological Indicator: Fluoride; Sampling Period: End of turn Value: 3 mg/L; Medium: Urine Remark: Background; Not Specific

Predicted No Effect Concentration (PNEC) values

toluene; 1-Methylbenzene CAS: 108-88-3	Exposure Route: Freshwater sediments Remark: PNEC Exposure Route: Soil Remark: PNEC Exposure Route: Marine water sediments Remark: PNEC Exposure Route: Fresh Water Remark: PNEC Exposure Route: Marine water Remark: PNEC Exposure Route: Intermittent release Remark: PNEC Exposure Route: Microorganisms in sewage treatments
acetone; propan-2-one CAS: 67-64-1	Exposure Route: Freshwater sediments; PNEC Limit: 30.4 mg/kg Exposure Route: Marine water sediments; PNEC Limit: 3.04 mg/kg Exposure Route: Fresh Water; PNEC Limit: 10.6 mg/l Exposure Route: Marine water; PNEC Limit: 1.06 mg/l Exposure Route: Soil; PNEC Limit: 29.5 mg/l Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 100 mg/l

Derived No Effect Level (DNEL) values

toluene; 1-Methylbenzene CAS: 108-88-3	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 384 mg/m3; Consumer: 226 mg/kg Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 192 mg/m3 Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Consumer: 226 mg/kg Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Industry: 384 mg/m3
acetone; propan-2-one CAS: 67-64-1	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 186 mg/kg Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Industry: 2420 mg/m3 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 1210 mg/m3 Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 62 mg/kg Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects

Consumer: 62 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 200 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Industry: 2420 mg/m³

Appropriate engineering controls: Not available

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use contact lenses.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0,35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: blue

Odour: No data available

Odour threshold: No data available

pH: No data available

Melting point / freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: $-6\text{ }^{\circ}\text{C}$ ($21\text{ }^{\circ}\text{F}$)

Evaporation rate: No data available

Upper/lower flammability or explosive limits: No data available

Vapour density: No data available

Vapour pressure: No data available

Relative density: 0.92 g/cm^3

Solubility in water: No data available

Solubility in oil: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Solid/gas flammability: No data available

Other information

Substance Groups relevant properties No data available

Miscibility: No data available

Fat Solubility: No data available

Conductivity: No data available

10. STABILITY AND REACTIVITY

Reactivity

It may generate dangerous reactions (See subsections below)

Chemical stability

It may generate dangerous reactions (See subsections below)

Possibility of hazardous reactions

None.

Conditions to avoid

Avoid accumulating electrostatic charge.

Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

Hazardous decomposition products

None.

11. TOXICOLOGICAL INFORMATION**Information on toxicological effects****Toxicological Information of the Preparation**

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin irritation, Category 2(H315)
c) serious eye damage/irritation	The product is classified: Eye irritation, Category 2A(H319)
d) respiratory or skin sensitisation	The product is classified: Skin Sensitization, Category 1B(H317)
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	The product is classified: Carcinogenicity, Category 2(H351)
g) reproductive toxicity	The product is classified: Reproductive toxicity, Category 2(H361)
h) STOT-single exposure	The product is classified: Specific target organ toxicity following single exposure, Category 3(H336)
i) STOT-repeated exposure	The product is classified: Specific target organ toxicity following repeated exposure, Category 2(H373)
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

toluene; 1-Methylbenzene	a) acute toxicity	LD50 Oral Rat = 5580 mg/kg LD50 Skin Rabbit = 12124 mg/kg LC50 Inhalation Rat = 12.5 mg/l 4h
	g) reproductive toxicity	NOAEC Rat = 1200 ppm NOAEL Rat = 2000 ppm
tert-butyl acetate; Acetic acid, 1,1-dimethylethyl ester	a) acute toxicity	LD50 Skin Rabbit > 2000 mg/kg LC50 Inhalation Rat > 9482 mg/m3 4h LD50 Oral Rat = 4500 mg/kg
acetone; propan-2-one	a) acute toxicity	LD50 Oral Rat = 5800 mg/kg LD50 Skin Rabbit = 20000 mg/kg LC50 Inhalation Rat = 76 mg/l 4h LC50 Inhalation Rat = 50100 mg/m3 8h
n-hexane; hexyl hydride	a) acute toxicity	LD50 Skin Rabbit = 3000 mg/kg
4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride	a) acute toxicity	LD50 Oral Rat 13000 mg/kg LC50 Inhalation Mouse 20 mg/l LD50 Skin Rabbit > 2 mg/kg LD50 Skin Rabbit > 2 ml/kg LC50 Inhalation Rat = 33 mg/l 4h LD50 Oral Rat = 13 g/kg LD50 Skin Rabbit > 2 ml/kg

LC50 Inhalation Rat = 33 mg/l 4h
LD50 Oral Rat = 13 g/kg
LD50 Skin Rabbit > 3300 mg/kg
g) reproductive toxicity No Observed Adverse Effect Level Oral Rat > 45

Substance(s) listed on the IARC Monographs:

toluene; 1-Methylbenzene Group 3
4-chloro-a,a,a-trifluorotoluene; Group 2B
chlorobenzotrifluoride

Substance(s) listed as OSHA Carcinogen(s):

4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride

Substance(s) listed as NIOSH Carcinogen(s):

None

Substance(s) listed on the NTP report on Carcinogens:

None

12. ECOLOGICAL INFORMATION

Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

The product is classified: Acute aquatic hazard, category 3(H402), Chronic (long term) aquatic hazard, category 3(H412)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
toluene; 1-Methylbenzene	CAS: 108-88-3 - EINECS: 203-625-9 - INDEX: 601-021-00-3	a) Aquatic acute toxicity : EC50 Algae = 134 mg/L 3 a) Aquatic acute toxicity : LC50 Fish = 5.5 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna 5.46 mg/L 48h EPA a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata > 433 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 12.5 mg/L 72h EPA b) Aquatic chronic toxicity : NOEC Daphnia = 0.74 mg/L - 7 days
tert-butyl acetate; Acetic acid, 1, 1-dimethylethyl ester	CAS: 540-88-5 - EINECS: 208-760-7 - INDEX: 607-026-00-7	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 240 mg/L 96h ECHA
acetone; propan-2-one	CAS: 67-64-1 - EINECS: 200-662-2 - INDEX: 606-001-00-8	a) Aquatic acute toxicity : LC50 Daphnia 350 mg/L 48h ECHA a) Aquatic acute toxicity : EC50 Daphnia = 8800 mg/L 48h
n-hexane; hexyl hydride	CAS: 110-54-3 - EINECS: 203-777-6 - INDEX: 601-037-00-0	a) Aquatic acute toxicity : LC50 Fish = 5540 mg/L 96h a) Aquatic acute toxicity : EC50 Algae = 302 mg/L 96h a) Aquatic acute toxicity : EL50 Daphnia = 21.85 mg/L 48h a) Aquatic acute toxicity : LC50 Algae = 9.285 mg/L 72h a) Aquatic acute toxicity : LC50 Fish = 12.51 mg/L 96h

4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride	CAS: 98-56-6 - EINECS: 202- 681-1	LC50 Fish Lepomis macrochirus = 11.4 mg/L 72h UNION CARBIDE CORP. ENVIRONMENTAL SERVICES-THE ACUTE TOXICITY OF PCBTF TO BLUEGILL SUN FISH UCES PROJECT NÂ° 11506-81-07-1979-N.Y.TARRY TOWN. - ca.11.4 ca.14.1 mg/L LOEC Fish Pimephales promelas 1.4 mg/L ,,E G & G , BIONOMICS, AQUATIC TOXICOLOGY LABORATORY-THE TOXICITY OF PCBTF TO FATHEAD MINNOW EMBRIOS AND LARVAE - REPORT B W - 81-3-838, 1981, WAREHAM IN EPA DOCUMENT NÂ° 40-8152019. NOEC Fish Pimephales promelas 0.54 mg/L ,,E G & G , BIONOMICS, AQUATIC TOXICOLOGY LABORATORY-THE TOXICITY OF PCBTF TO FATHEAD MINNOW EMBRIOS AND LARVAE - REPORT B W - 81-3-838, 1981, WAREHAM IN EPA DOCUMENT NÂ° 40-8152019. EC50 Daphnia Daphnia magna = 0.12 mg/L 4d 1/6 2/6 PRESI DA UNION CARBIDE CORP. ENVIRONMENTAL SERVICES-THE ACUTE TOXICITY OF PCBTF TO THE WATER FLEA DAPHNIA MAGNA STRAUS UCES PROJECT NÂ° 11506-81-06-1979- N.Y. TARRY TOWN IN EPA DOCUMENT NÂ° 40-7952015. 4/6 5/6 PRESI DA PECE P. - DETERMINAZI - ca.0.12 ca.0.222 mg/L EC100 Daphnia Daphnia magna 4.92 mg/L 48h EC50 Daphnia Daphnia magna = 10.7 mg/L 48h - ca.10.7 ca.14.5 mg/L a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 3.68 mg/L 48h IUCLID a) Aquatic acute toxicity : LC50 Fish Danio rerio = 3 mg/L 96h ECHA
--	---	---

Persistence and degradability

Component	Persitence/Degradability:
toluene; 1-Methylbenzene	Readily biodegradable
tert-butyl acetate; Acetic acid, 1, 1-dimethylethyl ester	Non-readily biodegradable
acetone; propan-2-one	Readily biodegradable
n-hexane; hexyl hydride	Readily biodegradable

Bioaccumulative potential

Component	Bioaccumulation
tert-butyl acetate; Acetic acid, 1, 1-dimethylethyl ester	Not bioaccumulative

Mobility in soil

N.A.

Other adverse effects

N.A.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Methods of disposal:

- Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
 - Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.
 - Do not dispose of waste into sewers.
- Disposal considerations:
- Do not allow to enter drains or watercourses.
 - Dispose of product according to all federal, state and local applicable regulations.
 - If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.
 - Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

- This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Empty containers or liners may retain some product residues. Do not re-use empty containers.

14. TRANSPORT INFORMATION

UN number

DOT-UN Number: UN1993
ADR-UN number: 1993
IATA-Un number: 1993
IMDG-Un number: 1993

UN proper shipping name

DOT-Proper Shipping Name: Flammable liquids, n.o.s. (toluene - acetone)
ADR-Shipping Name: FLAMMABLE LIQUID, N.O.S. (toluene - acetone)
IATA-Technical name: FLAMMABLE LIQUID, N.O.S. (toluene - acetone)
IMDG-Technical name: FLAMMABLE LIQUID, N.O.S. (toluene - acetone)

Transport hazard class(es)

DOT-Hazard Class: 3
ADR-Class: 3
IATA-Class: 3
IMDG-Class: 3

Packing group

DOT Packing Group: II
ADR-Packing Group: II
IATA-Packing group: II
IMDG-Packing group: II

Environmental hazards

Marine pollutant: No
Environmental Pollutant: Not Applicable
DOT-RQ: Yes DOT-RQ - Quantity: 1000 lbs

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Applicable

Special precautions

Department of Transportation (DOT):

DOT-Special Provision(s): IB2, T7, TP1, TP8, TP28
DOT-Label(s): 3
DOT-Symbol: N/A
DOT-Cargo Aircraft: 60 L
DOT-Passenger Aircraft: 5 L
DOT-Bulk: 242
DOT-Non-Bulk: 202
DOT-Limited Quantity threshold: 1 L

Road and Rail (ADR-RID) :

ADR-Label: 3
ADR-Hazard identification number: 33
ADR-Transport category (Tunnel restriction code): 2 (D/E)

Air (IATA) :

IATA-Passenger Aircraft: 353
IATA-Cargo Aircraft: 364
IATA-Label: 3
IATA-Subsidiary hazards: -
IATA-Erg: 3H
IATA-Special Provisioning: A3

Sea (IMDG) :

IMDG-Stowage Code: Category B
IMDG-Stowage Note: -
IMDG-Subsidiary hazards: -
IMDG-Special Provisioning: 274
IMDG-EMS: F-E, [S-E]

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

All the components are listed on the TSCA inventory

TSCA listed substances:

toluene; 1-Methylbenzene	is listed in TSCA	Section 8b
tert-butyl acetate; Acetic acid, 1, 1-dimethylethyl ester	is listed in TSCA	Section 8b Section 8a - PAIR
acetone; propan-2-one	is listed in TSCA	Section 8b
n-hexane; hexyl hydride	is listed in TSCA	Section 8b
4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride	is listed in TSCA	Section 8b Section 8a - PAIR Section 12b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

No substances listed

Section 304 - Hazardous substances:

toluene; 1-Methylbenzene
tert-butyl acetate; Acetic acid, 1,1-dimethylethyl ester
acetone; propan-2-one
n-hexane; hexyl hydride

Section 313 - Toxic chemical list:

toluene; 1-Methylbenzene
n-hexane; hexyl hydride

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

toluene; 1-Methylbenzene	Reportable quantity:	1000	pounds
tert-butyl acetate; Acetic acid, 1,1-dimethylethyl ester	Reportable quantity:	5000	pounds
acetone; propan-2-one	Reportable quantity:	5000	pounds
n-hexane; hexyl hydride	Reportable quantity:	5000	pounds

CAA - Clean Air Act

CAA listed substances:

toluene; 1-Methylbenzene	is listed in CAA	Section 112(b) - HAP Section 112(b) - HON
acetone; propan-2-one	is listed in CAA	Section 112(b) - HON
n-hexane; hexyl hydride	is listed in CAA	Section 112(b) - HAP Section 112(b) - HON

CWA - Clean Water Act

CWA listed substances:

toluene; 1-Methylbenzene	is listed in CWA	Section 307 Section 311
tert-butyl acetate; Acetic acid, 1, 1-dimethylethyl ester	is listed in CWA	Section 311

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

toluene; 1-Methylbenzene	Listed as reproductive toxicant
n-hexane; hexyl hydride	Listed as reproductive toxicant
4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride	Listed as carcinogen

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

toluene; 1-Methylbenzene
tert-butyl acetate; Acetic acid, 1,1-dimethylethyl ester
acetone; propan-2-one
n-hexane; hexyl hydride

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

toluene; 1-Methylbenzene

tert-butyl acetate; Acetic acid, 1,1-dimethylethyl ester
acetone; propan-2-one
n-hexane; hexyl hydride

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

toluene; 1-Methylbenzene
tert-butyl acetate; Acetic acid, 1,1-dimethylethyl ester
acetone; propan-2-one
n-hexane; hexyl hydride
4-chloro-a,a,a-trifluorotoluene; chlorobenzotrifluoride

Canada - Federal regulations

DSL - Domestic Substances List

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

This product complies with NDSL inventory

NPRI - National Pollutant Release Inventory

NPRI (National Pollutant Release Inventory) - List of substances listed.

No substances listed

16. OTHER INFORMATION

Safety Data Sheet dated: 8/22/2024 - version 5

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Code	Description
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
A.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
A.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
A.2/2	Skin Irrit. 2	Skin irritation, Category 2
A.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
A.4.2/1B	Skin Sens. 1B	Skin Sensitization, Category 1B
A.6/2	Carc. 2	Carcinogenicity, Category 2
A.7/2	Repr. 2	Reproductive toxicity, Category 2

A.8/3	STOT SE 3	Specific target organ toxicity following single exposure, Category 3
A.9/2	STOT RE 2	Specific target organ toxicity following repeated exposure, Category 2
B.6/2	Flam. Liq. 2	Flammable Liquids — Category 2
B.6/3	Flam. Liq. 3	Flammable Liquids — Category 3
US-HAE/A2	Aquatic Acute 2	Acute aquatic hazard, category 2
US-HAE/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
US-HAE/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

GefStoffVO: Ordinance on Hazardous Substances, Germany.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

DNEL: Derived No Effect Level.

PNEC: Predicted No Effect Concentration.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

WGK: German Water Hazard Class.

KSt: Explosion coefficient.

Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 5. FIRE-FIGHTING MEASURES
- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION