

System X Revive

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Issue date: 08/18/2020

Revision date: 08/18/2020

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : System X Revive
Product code : SXREVIVE

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Surface protectant/surfacant

1.3. Supplier

Manufacturer

ELEMENT 119 LLC
10 Marine St #3, Thomaston, CT 06787 USA
T 1 860-358-0119
www.element119.com

1.4. Emergency telephone number

Emergency number : 1 703-741-5500 (CHEMTREC CCN 852792)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flam. Liq. 3
Acute Tox. 4 (Oral)
Acute Tox. 4 (Dermal)
STOT SE 3

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

Flammable liquid and vapor
Harmful if swallowed or in contact with skin
May cause respiratory irritation

Precautionary statements (GHS US) :

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center or doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center or doctor if you feel unwell.
Wash contaminated clothing before reuse.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance

System X Revive

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

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)

20% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
20% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
tert-Butyl acetate	(CAS-No.) 540-88-5	30 – 60
Benzene, 1-chloro-4-(trifluoromethyl)-	(CAS-No.) 98-56-6	10 – 40
Ambient curable resin	(CAS-No.) Proprietary	10 – 40

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before re-using. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after eye contact : IF IN EYES: 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 : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

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

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
- Symptoms/effects after skin contact : Harmful in contact with skin. May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
- Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/effects after ingestion : Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Carbon dioxide (CO₂), dry chemical powder, foam.
- Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

- Fire hazard : Flammable liquid and vapor. Products of combustion may include, and are not limited to: oxides of carbon.
- Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

System X Revive

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Use explosion-proof electrical/ventilating/lighting equipment. Wear personal protective equipment.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep out of the reach of children. Keep cool. Keep container tightly closed and in a well-ventilated place. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

System X Revive	
No additional information available	
tert-Butyl acetate (540-88-5)	
USA - ACGIH - Occupational Exposure Limits	
Local name	tert-Butyl acetate
ACGIH TWA (ppm)	50 ppm (Butyl acetates, all isomers)
ACGIH STEL (ppm)	150 ppm (Butyl acetates, all isomers)
Remark (ACGIH)	TLV® Basis: Eye & URT irr
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	tert-Butyl-acetate
OSHA PEL (TWA) (mg/m³)	950 mg/m³
OSHA PEL (TWA) (ppm)	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
US IDLH (ppm)	1500 ppm (10% LEL)

System X Revive

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA) (mg/m ³)	950 mg/m ³
NIOSH REL (TWA) (ppm)	200 ppm
Benzene, 1-chloro-4-(trifluoromethyl)- (98-56-6)	
No additional information available	
Ambient curable resin (Proprietary)	
No additional information available	

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:

Wear suitable gloves

Eye protection:

Wear eye/face protection

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Color	: Clear
Odor	: Aromatic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 48 °C (118 °F)
Flash point	: 54 °C (129 °F)
Relative evaporation rate (butyl acetate=1)	: < 1
Flammability (solid, gas)	: Flammable liquid and vapor.
Vapor pressure	: < 0.12 hPa
Relative vapor density at 20 °C (68 °F)	: No data available
Relative density	: 0.98 (60 °F)
Solubility	: Water: < 0.01
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: 400 °C (752 °F)
Decomposition temperature	: No data available
Viscosity, kinematic	: 2.1 mm ² /s
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available

System X Revive

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials. Sources of ignition. Direct sunlight.

10.5. Incompatible materials

Strong acids. strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Not classified

System X Revive	
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight

tert-Butyl acetate (540-88-5)	
LD50 oral rat	4100 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 9482 mg/m ³ (Exposure time: 4 h)

Benzene, 1-chloro-4-(trifluoromethyl)- (98-56-6)	
LD50 oral rat	13 g/kg
LD50 dermal rabbit	> 2 ml/kg
LC50 inhalation rat	33 mg/l/4h

Skin corrosion/irritation : Not classified.
Serious eye damage/irritation : Not classified.
Respiratory or skin sensitization : Not classified.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Benzene, 1-chloro-4-(trifluoromethyl)- (98-56-6)	
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity

Reproductive toxicity : Not classified
STOT-single exposure : May cause respiratory irritation.

Benzene, 1-chloro-4-(trifluoromethyl)- (98-56-6)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : 2.1 mm²/s
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

System X Revive

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Symptoms/effects after skin contact	: Harmful in contact with skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment

tert-Butyl acetate (540-88-5)	
LC50 fish 1	296 – 362 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
Benzene, 1-chloro-4-(trifluoromethyl)- (98-56-6)	
LC50 fish 1	3 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static])
EC50 Daphnia 1	3.68 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

System X Revive	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

System X Revive	
Bioaccumulative potential	Not established.
tert-Butyl acetate (540-88-5)	
Partition coefficient n-octanol/water	1.38
Benzene, 1-chloro-4-(trifluoromethyl)- (98-56-6)	
Partition coefficient n-octanol/water	3.7 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information	: Handle empty containers with care because residual vapors are flammable.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT	
UN-No.(DOT)	: UN1139
Proper Shipping Name (DOT)	: Coating solution
Class (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT)	: III
Hazard labels (DOT)	:



System X Revive

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 15: Regulatory information


15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. International regulations

No additional information available

15.3. US State regulations

 **WARNING:** This product can expose you to Benzene, 1-chloro-4-(trifluoromethyl)-, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Issue date : 08/18/2020
Revision date : 08/18/2020
Other information : None.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.