

SAFETY DATA SHEET

Section 1. Identification

Product identifier : 020 16184
Product name : Standox SR ADDITIVE
Other means of identification : 4024669161847

Date of issue : 2/7/2024
Version : 11.01

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Coating component.
Uses advised against : Not for sale to or use by consumers.

Supplier's details : Axalta Coating Systems, LLC
 50 Applied Bank Blvd.
 Suite 300
 Glen Mills, PA 19342
 USA

Product information : 855-6AXALTA

Emergency telephone number : (CHEMTREC) - 800-424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
 ACUTE TOXICITY (oral) - Category 4
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION - Category 1B
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

Hazard statements	: H226 - Flammable liquid and vapor. H302 + H332 - Harmful if swallowed or if inhaled. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness. H351 - Suspected of causing cancer. H360 - May damage fertility or the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure.
<u>Precautionary statements</u>	
Prevention	: P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating or lighting equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling.
Response	: P308 + P313 - IF exposed or concerned: Get medical advice or attention. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. P362 + P364 - Take off contaminated clothing and wash it before reuse. P363 - Wash contaminated clothing before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Keep cool.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	CAS number	Concentration
Normal butyl alcohol	71-36-3	≥25 - ≤45
XYLENE	1330-20-7	≥25 - ≤40
ethylbenzene	100-41-4	≤10
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl] ethylenediamine	35141-30-1	≤10
Ethan-1,2-diamine, N-(2-aminoethyl)-N'-3-(trimethoxysilyl)propyl	103526-27-8	<1

Section 3. Composition/information on ingredients

1,2-ETHANEDIAMINE, N1-(2-AMINOETHYL)-N2-[3-(TRIMETHOXYSILYL)PROPYL]-, HOMOPOLYMER	162339-40-4	<1
Methyl alcohol	67-56-1	≤0.3
1,2-ETHANEDIAMINE, N1-(2-AMINOETHYL)-N2-[3-(TRIMETHOXYSILYL)PROPYL]-, HYDROCHLORIDE (1:1)	97763-30-9	≤0.3
Diethylenetriamine	111-40-0	≤0.3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.

Section 4. First aid measures

- Inhalation** : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact

Section 6. Accidental release measures

information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
- Storage code** : IC

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
butan-1-ol	<p>ACGIH TLV (United States, 1/2023). TWA: 20 ppm 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. CEIL: 50 ppm CEIL: 150 mg/m³</p> <p>NIOSH REL (United States, 10/2020). Absorbed through skin. CEIL: 50 ppm CEIL: 150 mg/m³</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 300 mg/m³ 8 hours.</p> <p>CAL OSHA PEL (United States, 5/2018). Absorbed</p>

Section 8. Exposure controls/personal protection

<p>XYLENE</p>	<p>through skin. C: 150 mg/m³ C: 50 ppm</p> <p>OSHA PEL 1989 (United States, 3/1989). [Xylenes (o-, m-, p-isomers)] TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 655 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). [Xylenes] TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> <p>CAL OSHA PEL (United States, 5/2018). [xylene] STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. C: 300 ppm TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</p> <p>ACGIH TLV (United States, 1/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant. TWA: 20 ppm 8 hours.</p>
<p>ethylbenzene</p>	<p>ACGIH TLV (United States, 1/2023). Ototoxicant. TWA: 20 ppm 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.</p> <p>NIOSH REL (United States, 10/2020). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> <p>CAL OSHA PEL (United States, 5/2018). STEL: 130 mg/m³ 15 minutes. STEL: 30 ppm 15 minutes. TWA: 22 mg/m³ 8 hours. TWA: 5 ppm 8 hours.</p>
<p>N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl] ethylenediamine</p>	<p>None.</p>
<p>Ethan-1,2-diamine, N-(2-aminoethyl)-N'-3-(trimethoxysilyl) propyl</p>	<p>None.</p>
<p>1,2-ETHANEDIAMINE, N1-(2-AMINOETHYL)-N2-[3-(TRIMETHOXYSILYL)PROPYL]-, HOMOPOLYMER</p>	<p>None.</p>
<p>methanol</p>	<p>ACGIH TLV (United States, 1/2023). Absorbed through skin. TWA: 200 ppm 8 hours.</p>

Section 8. Exposure controls/personal protection

<p>1,2-ETHANEDIAMINE, N1-(2-AMINOETHYL)-N2-[3-(TRIMETHOXYSILYL)PROPYL]-, HYDROCHLORIDE (1:1)</p> <p>2,2'-iminodiethylamine</p>	<p>TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. NIOSH REL (United States, 10/2020). Absorbed through skin. TWA: 200 ppm 10 hours. TWA: 260 mg/m³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours. CAL OSHA PEL (United States, 5/2018). Absorbed through skin. STEL: 325 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. C: 1000 ppm TWA: 260 mg/m³ 8 hours. TWA: 200 ppm 8 hours.</p> <p>None.</p> <p>ACGIH TLV (United States, 1/2023). Absorbed through skin. TWA: 1 ppm 8 hours. TWA: 4.2 mg/m³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 1 ppm 8 hours. TWA: 4 mg/m³ 8 hours. NIOSH REL (United States, 10/2020). Absorbed through skin. TWA: 1 ppm 10 hours. TWA: 4 mg/m³ 10 hours. CAL OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 4 mg/m³ 8 hours. TWA: 1 ppm 8 hours.</p>
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Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Clear.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Technically not possible to measure
- Boiling point** : 67 to 250°C (152.6 to 482°F)
- Flash point** : Closed cup: 24°C (75.2°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1%
Upper: 11.3%
- Vapor pressure** : 0.8 kPa (6 mm Hg)
- Vapor density** : Not available.

Section 9. Physical and chemical properties

Density	: 0.877 g/cm ³
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: 355°C (671°F)
Decomposition temperature	: Not applicable.
Viscosity	: Dynamic (room temperature): 18 mPa·s (18 cP) Kinematic (room temperature): 21 mm ² /s (21 cSt) Kinematic (40°C (104°F)): 3.1 mm ² /s (3.1 cSt)
Flow time (ISO 2431)	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
XYLENE	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine	LC50 Inhalation Dusts and mists	Rat	1.49 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	2295 mg/kg	-
Ethan-1,2-diamine, N-(2-aminoethyl)-N'-3-(trimethoxysilyl)propyl	LC50 Inhalation Dusts and mists	Rat	2.44 mg/l	4 hours
1,2-ETHANEDIAMINE, N1-	LC50 Inhalation Dusts and mists	Rat	2.44 mg/l	4 hours

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(2-AMINOETHYL)-N2-[3-(TRIMETHOXYSILYL)PROPYL]-, HOMOPOLYMER methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
2,2'-iminodiethylamine	LC50 Inhalation Dusts and mists	Rat	0.19 mg/l	4 hours
	LD50 Dermal	Rabbit	1090 mg/kg	-
	LD50 Oral	Rat	1080 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
butan-1-ol	Eyes - Cornea opacity	Rabbit	2.11	-	7 days
	Eyes - Severe irritant	Rabbit	-	0.005 MI	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
XYLENE	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
ethylbenzene	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine	Eyes - Visible necrosis	Rabbit	-	24 hours	24 hours
Ethan-1,2-diamine, N-(2-aminoethyl)-N'-3-(trimethoxysilyl)propyl	Eyes - Severe irritant	Rabbit	-	-	-
1,2-ETHANEDIAMINE, N1-(2-AMINOETHYL)-N2-[3-(TRIMETHOXYSILYL)PROPYL]-, HOMOPOLYMER	Eyes - Severe irritant	Rabbit	-	-	-
1,2-ETHANEDIAMINE, N1-(2-AMINOETHYL)-N2-[3-(TRIMETHOXYSILYL)PROPYL]-, HYDROCHLORIDE (1:1)	Eyes - Severe irritant	Rabbit	-	-	-

Sensitization

Section 11. Toxicological information

Product/ingredient name	Route of exposure	Species	Result
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl] ethylenediamine	skin	Guinea pig	Sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
XYLENE	-	3	-
ethylbenzene	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
butan-1-ol	Category 3	-	Respiratory tract irritation
XYLENE	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
methanol	Category 1 Category 3	-	- Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	-

Aspiration hazard

Name	Result
XYLENE	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Section 11. Toxicological information

Ingestion : Harmful if swallowed. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : May damage the unborn child.

Section 11. Toxicological information

- Developmental effects** : No known significant effects or critical hazards.
Fertility effects : May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1713.08 mg/kg
Dermal	2520.13 mg/kg
Inhalation (gases)	15681.33 ppm
Inhalation (vapors)	137.65 mg/l
Inhalation (dusts and mists)	24.49 mg/l






Section 12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses waterways.

Section 13. Disposal considerations

- Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions 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 non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III

Section 14. Transport information

Environmental hazards	No.	No.	No.	No.	No.

Additional information

DOT Classification : **Reportable quantity** 313.63 lbs / 142.39 kg [42.89 gal / 162.36 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

The actual shipping description for this product may vary based several factors including, but not limited to, the volume of material, size of the container, mode of transport and use of exemptions or exceptions found in the applicable regulations. The information provided in Section 14 is one possible shipping description for this product. Consult your shipping specialist or supplier for appropriate assignment information.

Section 15. Regulatory information

Clean Air Act Section 112 : Listed

(b) Hazardous Air Pollutants (HAPs)

SARA 304 RQ

SARA 304 RQ : 834167.5 lbs / 378712 kg [114076.6 gal / 431826.7 L]

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
 ACUTE TOXICITY (oral) - Category 4
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION - Category 1B
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 ASPIRATION HAZARD - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	butan-1-ol	71-36-3	≥25 - ≤45
	XYLENE	1330-20-7	≥25 - ≤40
	ethylbenzene	100-41-4	≤10
Supplier notification	butan-1-ol	71-36-3	≥25 - ≤45
	XYLENE	1330-20-7	≥25 - ≤40
	ethylbenzene	100-41-4	≤10

Section 15. Regulatory information

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Inventory list

- Canada** : All components are listed or exempted.
United States : All components are listed or exempted.

Section 16. Other information

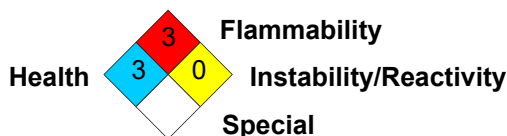
Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		3
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

- Date of issue** : 2/7/2024
Version : 11.01

Product stewardship and regulatory compliance.

Key to abbreviations

- : ATE = Acute Toxicity Estimate
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

▀ Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

This product is intended for industrial use only.

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