SAFETY DATA SHEET

B67H2000

Section 1. Identification

Product name : ARMORSEAL® 1000 HS Epoxy (Part A)
Sandstone

Product code : B67H2000

Other means of identification : Not available.

Product type : Liquid.

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

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

National contact : Sherwin-Williams Canada Inc.
180 Brunel Road
Mississauga, Ontario L4Z 1T5 Canada

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 524-5979
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 1C
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 5% (oral), 21.5% (dermal), 24% (inhalation)

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause cancer.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. 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 : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Polyamidoamine	16.55	68082-29-1
Xylene, mixed isomers	10.7	1330-20-7
Titanium Dioxide	8.98	13463-67-7
Phenylmethanol	6.06	100-51-6
2-methoxy-1-methylethyl acetate	2.86	108-65-6
Ethylbenzene	2.74	100-41-4
Poly(oxypropylene)diamine	2.42	9046-10-0
Butyl Benzyl Phthalate	2.42	85-68-7
n-Aminoethyl Piperazine	2.15	140-31-8
Light Aromatic Hydrocarbons	1.85	64742-95-6
Toluene	0.19	108-88-3
Triethylene Tetramine	0.15	112-24-3
Terpene Hydrocarbons	0.13	68956-56-9
Formaldehyde (max.)	0.06	50-00-0

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 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

Section 4. First aid measures

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : May cause respiratory irritation.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : 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
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, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Section 5. Fire-fighting measures

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. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

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.

Remark : Flammable liquid.

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 information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Contains a formaldehyde-based resin which, under certain conditions of use, may release formaldehyde. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Polyamidoamine	68082-29-1	None.
Xylene, mixed isomers	1330-20-7	**OSHA PEL (United States, 5/2018). [Xylenes (o-, m-, p-isomers)]** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant.** TWA: 20 ppm 8 hours.
Titanium Dioxide	13463-67-7	**OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 1/2023).** TWA: 2.5 mg/m³ 8 hours. Form: respirable fraction, finescale particles
Phenylmethanol	100-51-6	**OARS WEEL (United States, 4/2022).** TWA: 10 ppm 8 hours.
2-methoxy-1-methylethyl acetate	108-65-6	**OARS WEEL (United States, 4/2022).** TWA: 50 ppm 8 hours.
Ethylbenzene	100-41-4	**ACGIH TLV (United States, 1/2023). Ototoxicant.**

Section 8. Exposure controls/personal protection

		TWA: 20 ppm 8 hours. **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. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Poly(oxypropylene)diamine	9046-10-0	None.
Butyl Benzyl Phthalate	85-68-7	None.
n-Aminoethyl Piperazine	140-31-8	None.
Light Aromatic Hydrocarbons	64742-95-6	None.
Toluene	108-88-3	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 1/2023).** **Ototoxicant.** TWA: 20 ppm 8 hours.
Triethylene Tetramine	112-24-3	**OARS WEEL (United States, 4/2022).** **Absorbed through skin.** TWA: 1 ppm 8 hours.
Terpene Hydrocarbons	68956-56-9	None.
Formaldehyde (max.)	50-00-0	**OSHA PEL Z2 (United States, 2/2013).** TWA: 0.75 ppm 8 hours. STEL: 2 ppm 15 minutes. **NIOSH REL (United States, 10/2020).** TWA: 0.016 ppm 10 hours. CEIL: 0.1 ppm 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 0.75 ppm 8 hours. STEL: 2 ppm 15 minutes. **ACGIH TLV (United States, 1/2023). Skin sensitizer. Inhalation sensitizer.** STEL: 0.3 ppm 15 minutes. TWA: 0.1 ppm 8 hours.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Xylene	1330-20-7	**CA Alberta Provincial (Canada, 6/2018). [Dimethylbenzene (o,m & p isomers)]** 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 6/2022). [Xylene (o, m & p isomers)]** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 6/2022).**

		[Xylene (o-,m-,p- isomers)] TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). [Xylene (o, m-, p-isomers)]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Benzyl alcohol	100-51-6	**OARS WEEL (United States, 4/2022).** TWA: 10 ppm 8 hours.
Ethylbenzene	100-41-4	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. **CA British Columbia Provincial (Canada, 6/2022).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 6/2022).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethyl alcohol	64-17-5	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. 8 hrs OEL: 1880 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 6/2022).** STEL: 1000 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** STEL: 1000 ppm 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 6/2022).** STEV: 1000 ppm 15 minutes.
Toluene	108-88-3	**CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.** 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 188 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 6/2022).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 6/2022).** TWAEV: 20 ppm 8 hours. **CA Saskatchewan Provincial (Canada,**

		7/2013). Absorbed through skin. STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
Triethylenetetramine	112-24-3	**CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.** TWA: 3 mg/m³ 8 hours. TWA: 0.5 ppm 8 hours.

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
Xylene, mixed isomers	1330-20-7	**NOM-010-STPS-2014 (Mexico, 4/2016). [Xylenes (mixed)]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	100-41-4	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.
Toluene	108-88-3	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Xylene, mixed isomers	**ACGIH BEI (United States, 1/2023) [xylenes (technical or commercial grade)]** BEI: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.
Ethylbenzene	**ACGIH BEI (United States, 1/2023)** BEI: 0.15 g/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.
Toluene	**ACGIH BEI (United States, 1/2023)** BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Xylene, mixed isomers	**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [xylenes (technical or commercial grade)]** BEI: 1.5 g/g creatinine, methyl hippuric acids [in urine]. Sampling time: at the end of the work shift.
Ethylbenzene	**Official Mexican STANDARD NOM-**

	047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 0.7 g/g creatinine [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], Sum of mandelic acid and acid phenylglyoxylic [in urine]. Sampling time: at the end of the shift at the end of the work week. BEI: semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible., ethylbenzene [in exhaled air]. Sampling time: uncritical.
Toluene	**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)** BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified. BEI: 1.6 g/g creatinine [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu; non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], hippuric acid [in urine]. Sampling time: at the end of the work shift. BEI: 0.5 mg/L [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu], o-cresol [in urine]. Sampling time: at the end of the work shift.

Section 8. Exposure controls/personal protection

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.

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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Section 9. Physical and chemical properties

Boiling point, initial boiling point, and boiling range : 136°C (276.8°F)

Flash point : Closed cup: 41°C (105.8°F) [Pensky-Martens Closed Cup]

Evaporation rate : 0.8 (butyl acetate = 1)

Flammability : Flammable liquid.

Lower and upper explosion limit/flammability limit : Lower: 0.7%
Upper: 13.1%

Vapor pressure : 0.95 kPa (7.1 mm Hg)

Relative vapor density : 3.66 [Air = 1]

Relative density : 1.37

Solubility(ies) :

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): <20.5 mm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Heat of combustion : 10.649 kJ/g

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. Do not allow vapor to accumulate in low or confined areas.

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

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Phenylmethanol	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1230 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Butyl Benzyl Phthalate	LD50 Dermal	Rabbit	>10000 mg/kg	-
	LD50 Dermal	Rat	6700 mg/kg	-
	LD50 Oral	Rat	2330 mg/kg	-
Light Aromatic Hydrocarbons	LD50 Oral	Rat	8400 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Triethylene Tetramine	LD50 Dermal	Rabbit	805 mg/kg	-
	LD50 Oral	Rat	2500 mg/kg	-
Formaldehyde (max.)	LC50 Inhalation Gas.	Rat	250 ppm	4 hours
	LD50 Dermal	Rabbit	270 mg/kg	-
	LD50 Oral	Rat	100 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylene, mixed isomers	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	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
Phenylmethanol	Skin - Mild irritant	Man	-	48 hours 16 mg	-
	Skin - Moderate irritant	Pig	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
Poly(oxypropylene)diamine	Eyes - Severe irritant	Rabbit	-	100 mg	-
n-Aminoethyl Piperazine	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
Light Aromatic Hydrocarbons	Eyes - Mild irritant	Rabbit	-	24 hours 100 uL	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-

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	Skin - Moderate irritant	Rabbit	-	500 mg	-
Triethylene Tetramine	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	49 mg	-
	Skin - Severe irritant	Rabbit	-	490 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
Formaldehyde (max.)	Eyes - Mild irritant	Human	-	6 minutes 1 ppm	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 ug	-
	Eyes - Severe irritant	Rabbit	-	750 ug	-
	Skin - Mild irritant	Human	-	72 hours 150 ug l	-
	Skin - Mild irritant	Rabbit	-	540 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Severe irritant	Human	-	0.01 %	-
	Skin - Severe irritant	Rabbit	-	0.8 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylene, mixed isomers	-	3	-
Titanium Dioxide	-	2B	-
Ethylbenzene	-	2B	-
Butyl Benzyl Phthalate	-	3	-
Toluene	-	3	-
Formaldehyde (max.)	+	1	Known to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Xylene, mixed isomers	Category 3	-	Respiratory tract irritation
Phenylmethanol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
2-methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects
Ethylbenzene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Light Aromatic Hydrocarbons	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Toluene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Formaldehyde (max.)	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Xylene, mixed isomers	Category 2	-	-
Phenylmethanol	Category 2	-	-
Ethylbenzene	Category 2	-	-
Light Aromatic Hydrocarbons	Category 2	-	-
Toluene	Category 2	-	-
Formaldehyde (max.)	Category 2	-	-

Aspiration hazard

Name	Result
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
Light Aromatic Hydrocarbons	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1
Terpene Hydrocarbons	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : May cause respiratory irritation.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : 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
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

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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 : May cause 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.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	7390 mg/kg
Dermal	5335.96 mg/kg
Inhalation (gases)	47641.58 ppm
Inhalation (vapors)	95.06 mg/l

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Toxicity

Product/ingredient name	Result	Species	Exposure
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - *Palaemonetes pugio*	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - *Fundulus heteroclitus*	96 hours
Phenylmethanol	Acute LC50 10 ppm Fresh water	Fish - *Lepomis macrochirus*	96 hours
Ethylbenzene	Acute EC50 4900 µg/l Marine water	Algae - *Skeletonema costatum*	72 hours
	Acute EC50 7700 µg/l Marine water	Algae - *Skeletonema costatum*	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - *Daphnia magna* -	48 hours

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		Neonate	
	Acute LC50 4200 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
Butyl Benzyl Phthalate	Acute EC50 0.22 ppm Marine water	Algae - *Skeletonema costatum*	72 hours
	Acute EC50 0.17 ppm Marine water	Algae - *Skeletonema costatum*	96 hours
	Acute EC50 1 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 2.2 ppm Marine water	Crustaceans - *Americamysis bahia*	48 hours
	Acute LC50 0.51 mg/l Marine water	Fish - *Cymatogaster aggregata* - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 0.1 mg/l Fresh water	Algae - *Skeletonema costatum*	96 hours
	Chronic NOEC 0.17 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
	Chronic NOEC 10 µg/l Fresh water	Fish - *Gasterosteus aculeatus*	66 days
n-Aminoethyl Piperazine	Acute LC50 2190000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Toluene	Acute EC50 >433 ppm Marine water	Algae - *Skeletonema costatum*	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - *Gammarus pseudolimnaeus* - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - *Oncorhynchus kisutch* - Fry	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
Triethylene Tetramine	Acute LC50 33900 µg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
Formaldehyde (max.)	Acute EC50 3.48 mg/l Fresh water	Algae - *Desmodesmus subspicatus*	72 hours
	Acute EC50 0.442 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute EC50 3.26 mg/l Fresh water	Daphnia - *Daphnia magna* - Embryo	48 hours
	Acute LC50 11.41 mg/l Fresh water	Crustaceans - *Ceriodaphnia dubia*	48 hours
	Acute LC50 1.41 ppm Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
	Chronic NOEC 1000 µg/l Marine water	Algae - *Phyllospora comosa* - Embryo	96 hours
	Chronic NOEC 3000 ppm Fresh water	Crustaceans - *Astacus astacus* - Egg	21 days
	Chronic NOEC 1.56 mg/l Fresh water	Fish - *Oreochromis niloticus* - Fingerling	12 weeks

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene, mixed isomers	-	-	Readily
Phenylmethanol	-	-	Readily
Ethylbenzene	-	-	Readily
Light Aromatic Hydrocarbons	-	-	Readily
Toluene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene, mixed isomers	-	8.1 to 25.9	Low
Butyl Benzyl Phthalate	-	1693.25	High
Light Aromatic Hydrocarbons	-	10 to 2500	High
Toluene	-	90	Low

Mobility in soil

Section 12. Ecological information

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

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	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT. Marine pollutant (Polyamidoamine, Butyl Benzyl Phthalate)
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	Yes. The environmentally hazardous substance mark is not required.	Yes.
Additional information	This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).	-	The environmentally hazardous substance mark may appear if required by other transportation regulations.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Emergency schedules** F-E, S-E

Section 14. Transport information

	liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity. **ERG No.** 128	**ERG No.** 128	**ERG No.** 128		

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

International regulations

Montreal Protocol

Not listed.

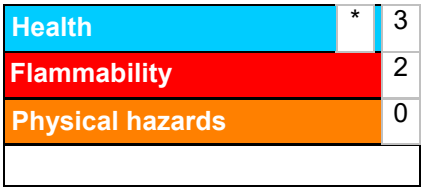
Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists : **Australia inventory (AIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

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



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.

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.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN CORROSION/IRRITATION - Category 1C	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
TOXIC TO REPRODUCTION - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
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)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer,

Section 16. Other information

or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.