

SAFETY DATA SHEET

MM 588

Section 1. Identification

Product name : BeroBase 500 Series Mixing Color
Base Additive

Product code : MM 588

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 : Imported By:
The Sherwin-Williams Company
4440 Warrensville Center Road
Warrensville Heights, OH 44128

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: 55-4160-8800 / 55-4160-8819 Monday to Friday from 8:30 a.m. to 5:30 p.m.

Product Information Telephone Number : US / Canada: (800) 798-5872
Mexico: 800-022-7926

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

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
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
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

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Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing 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, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation 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. If eye irritation persists: Get medical advice or attention.

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

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 PROFESSIONAL USE ONLY. Contains Formaldehyde - a potential cancer hazard.

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

Ingredient name	% by weight	Identifiers
Xylene, mixed isomers	≥25 - ≤48	1330-20-7
n-Butyl Acetate	≥25 - ≤50	123-86-4
Ethylbenzene	≤10	100-41-4
1-Butanol	≤1.8	71-36-3
Toluene	≤0.3	108-88-3

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 and hence require reporting in this section.

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

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Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : 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. Get medical attention.
- Inhalation** : 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. Get medical attention. If necessary, call a poison center or physician. 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.
- Skin contact** : Flush contaminated skin with plenty of 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. Get medical attention. 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. 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 irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : 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 or irritation
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

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
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** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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. 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

- 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. Avoid breathing 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. Absorb with an inert 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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. 

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). 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.

Section 7. Handling and storage

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
Xylene, mixed isomers	1330-20-7	ACGIH TLV (United States, 1/2024) [p-xylene and mixtures containing p-xylene] A4. Ototoxicant. TWA 8 hours: 20 ppm.
n-Butyl Acetate	123-86-4	OSHA PEL (United States, 5/2018) [Xylenes] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ . ACGIH TLV (United States, 1/2024) [Butyl acetates] STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 150 ppm. TWA 10 hours: 710 mg/m ³ . STEL 15 minutes: 200 ppm. STEL 15 minutes: 950 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 150 ppm. TWA 8 hours: 710 mg/m ³ .
Ethylbenzene	100-41-4	ACGIH TLV (United States, 1/2024) A3. Ototoxicant. TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 435 mg/m ³ . STEL 15 minutes: 125 ppm. STEL 15 minutes: 545 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ .
1-Butanol	71-36-3	ACGIH TLV (United States, 1/2024) TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m ³ .
Toluene	108-88-3	ACGIH TLV (United States, 1/2024) A4. Ototoxicant.

Section 8. Exposure controls/personal protection

TWA 8 hours: 20 ppm.
OSHA PEL Z2 (United States, 2/2013)
 TWA 8 hours: 200 ppm.
 CEIL: 300 ppm.
 AMP 10 minutes: 500 ppm.
NIOSH REL (United States, 10/2020)
 TWA 10 hours: 100 ppm.
 TWA 10 hours: 375 mg/m³.
 STEL 15 minutes: 150 ppm.
 STEL 15 minutes: 560 mg/m³.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Xylene	1330-20-7	CA Saskatchewan Provincial (Canada, 4/2021) [Xylene] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 4/2024) [xylene (o, m & p isomers)] TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm. CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA Quebec Provincial (Canada, 2/2024) [Xylene] TWAEV 8 hours: 100 ppm. TWAEV 8 hours: 434 mg/m ³ . STEV 15 minutes: 150 ppm. STEV 15 minutes: 651 mg/m ³ . CA Alberta Provincial (Canada, 3/2023) [Dimethylbenzene] OEL 8 hours: 100 ppm. OEL 15 minutes: 651 mg/m ³ . OEL 15 minutes: 150 ppm. OEL 8 hours: 434 mg/m ³ .
n-butyl acetate	123-86-4	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 200 ppm. TWA 8 hours: 150 ppm. CA British Columbia Provincial (Canada, 4/2024) [butyl acetate, all isomers] STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) [butyl acetates, all isomers] STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. CA Quebec Provincial (Canada, 2/2024) [butyl acetates] STEV 15 minutes: 150 ppm. TWAEV 8 hours: 50 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 200 ppm. OEL 15 minutes: 950 mg/m ³ .

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Ethylbenzene	100-41-4	<p>OEL 8 hours: 150 ppm. OEL 8 hours: 713 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 4/2024) Carc 2B. TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) C3. TWA EV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 100 ppm. OEL 8 hours: 434 mg/m³. OEL 15 minutes: 543 mg/m³. OEL 15 minutes: 125 ppm.</p>
Normal butyl alcohol	71-36-3	<p>CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. CA British Columbia Provincial (Canada, 4/2024) TWA 8 hours: 15 ppm. C: 30 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) TWA EV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 60 mg/m³. OEL 8 hours: 20 ppm.</p>
toluene	108-88-3	<p>CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 4/2024) Repr. TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) Ototoxicant. TWA EV 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 8 hours: 50 ppm. OEL 8 hours: 188 mg/m³.</p>

[Occupational exposure limits \(Mexico\)](#)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
Xylene, mixed isomers	1330-20-7	NOM-010-STPS-2014 (Mexico, 4/2016) [Xileno, mezcla] A4. STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
n-Butyl Acetate	123-86-4	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 150 ppm. STEL 15 minutes: 200 ppm.
Ethylbenzene	100-41-4	NOM-010-STPS-2014 (Mexico, 4/2016) A3. TWA 8 hours: 20 ppm.
1-Butanol	71-36-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 20 ppm.
Toluene	108-88-3	NOM-010-STPS-2014 (Mexico, 4/2016) A4. TWA 8 hours: 20 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Xylene, mixed isomers	ACGIH BEI (United States, 1/2024) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.
Ethylbenzene	ACGIH BEI (United States, 1/2024) BEI: 150 mg/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.
Toluene	ACGIH BEI (United States, 1/2024) 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)

Section 8. Exposure controls/personal protection

Toluene

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.

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.

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. 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.
- 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** : Clear.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 117°C (242.6°F)
- Flash point** : Closed cup: 25°C (77°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 1 (butyl acetate = 1)
- Flammability** : Flammable liquid.
- Lower and upper explosion limit/flammability limit** : Lower: 1%
Upper: 11.2%
- Vapor pressure** : 1.3 kPa (10 mm Hg)
- Relative vapor density** : 2.55 [Air = 1]

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Relative density : 0.92
Density : 0.92 g/cm³
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 : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): <20.5 mm²/s (<20.5 cSt)
Molecular weight : Not applicable.
Particle characteristics
Median particle size : Not applicable.
Heat of combustion : 22.261 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

Product/ingredient name

Xylene, mixed isomers

Result

Rat - Oral - LD50

4300 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rat - Inhalation - LC50 Gas.

6700 ppm [4 hours]

Toxic effects: Behavioral - Somnolence (general depressed activity)

n-Butyl Acetate

Rat - Oral - LD50

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Ethylbenzene	10768 mg/kg <u>Toxic effects:</u> Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Other changes Liver - Other changes Rabbit - Dermal - LD50
	>17600 mg/kg Rat - Oral - LD50
	3500 mg/kg <u>Toxic effects:</u> Liver - Other changes Kidney, Ureter, and Bladder - Other changes Rabbit - Dermal - LD50
1-Butanol	>5000 mg/kg Rat - Oral - LD50
	790 mg/kg <u>Toxic effects:</u> Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes Rabbit - Dermal - LD50
	3400 mg/kg Rat - Inhalation - LC50 Vapor
Toluene	24000 mg/m ³ [4 hours] Rat - Oral - LD50
	636 mg/kg Rat - Inhalation - LC50 Vapor
	49 g/m ³ [4 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Xylene, mixed isomers

Result

Rat - Skin - Mild irritant

Duration of treatment/exposure: 8 hours

Amount/concentration applied: 60 uL

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Skin - Moderate irritant

Amount/concentration applied: 100 %

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 15 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Pig - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 250 uL

Rabbit - Skin - Mild irritant

Amount/concentration applied: 435 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Rabbit - Skin - Moderate irritant

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Section 11. Toxicological information

Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Xylene, mixed isomers

n-Butyl Acetate

Ethylbenzene

1-Butanol

Toluene

Result

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 87 mg

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 mg

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 100 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 500 mg

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.005 MI

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 1.62 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 0.5 minutes

Amount/concentration applied: 100 mg

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 870 ug

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.1 MI

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

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Section 11. Toxicological information

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylene, mixed isomers	-	3	-
Ethylbenzene	-	2B	-
Toluene	-	3	-

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

Xylene, mixed isomers

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

n-Butyl Acetate

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Ethylbenzene

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

1-Butanol

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Toluene

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Result

Xylene, mixed isomers

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Ethylbenzene

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Toluene

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Aspiration hazard

Product/ingredient name

Result

Section 11. Toxicological information

Xylene, mixed isomers
Ethylbenzene
Toluene

ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : 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 or irritation
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:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
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

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Section 11. Toxicological information

Not available.

Conclusion/Summary [Product] : Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
BeroBase 500 Series Mixing Color	8834.0	6818.3	N/A	126.4	N/A
Xylene, mixed isomers	4300	2500	N/A	N/A	N/A
n-Butyl Acetate	10768	N/A	N/A	N/A	N/A
Ethylbenzene	3500	N/A	N/A	11	N/A
1-Butanol	2500	3400	N/A	24	N/A
Toluene	N/A	N/A	N/A	49	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Xylene, mixed isomers

Result

Acute - LC50 - Marine water
Crustaceans - Daggerblade grass shrimp - *Palaemon pugio*
8500 µg/l [48 hours]
Effect: Mortality

Acute - LC50 - Fresh water
Fish - Fathead minnow - *Pimephales promelas*
Age: 31 days; Size: 18.4 mm; Weight: 0.077 g
13.4 mg/l [96 hours]
Effect: Mortality

n-Butyl Acetate

Acute - LC50 - Fresh water
Fish - Fathead minnow - *Pimephales promelas*
Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g
18 mg/l [96 hours]
Effect: Mortality

Acute - LC50 - Marine water
Crustaceans - Brine shrimp - *Artemia salina*
32 mg/l [48 hours]
Effect: Mortality

Ethylbenzene

Acute - LC50 - Fresh water
Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*
4200 µg/l [96 hours]
Effect: Mortality
Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia magna* - Neonate
Age: ≤24 hours

Section 12. Ecological information

2.93 mg/l [48 hours]
Effect: Intoxication
Acute - EC50 - Fresh water
 Algae - Green algae - *Raphidocelis subcapitata*
 3600 µg/l [96 hours]
Effect: Population
Acute - LC50 - Fresh water
 Fish - Fathead minnow - *Pimephales promelas*
Age: 33 days; Size: 20.6 mm; Weight: 0.119 g
 1730 mg/l [96 hours]
Effect: Mortality
Acute - EC50 - Fresh water
 Daphnia - Water flea - *Daphnia magna*
Age: 6 to 24 hours
 1983 mg/l [48 hours]
Effect: Intoxication
Acute - LC50 - Fresh water
 Fish - Coho salmon, silver salmon - *Oncorhynchus kisutch* - Fry
Weight: 1 g
 5500 µg/l [96 hours]
Effect: Mortality
Acute - EC50 - Fresh water
 Daphnia - Water flea - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling)
 6000 µg/l [48 hours]
Effect: Intoxication
Chronic - NOEC - Fresh water
 Daphnia - Water flea - *Daphnia magna*
Age: ≤24 hours
 1 mg/l [21 days]
Effect: Mortality
Acute - EC50 - Fresh water
 Algae - Green algae - *Raphidocelis subcapitata*
 12.5 mg/l [72 hours]
Effect: Growth

1-Butanol

Toluene

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene, mixed isomers	-	-	Readily
n-Butyl Acetate	-	-	Readily
Ethylbenzene	-	-	Readily
1-Butanol	-	-	Readily
Toluene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Xylene, mixed isomers	-	8.1 to 25.9	Low
Toluene	-	90	Low

Section 12. Ecological information

Mobility in soil

Soil/Water partition coefficient : 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
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- ERG No. 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). ERG No. 128	- ERG No. 128	-	Emergency schedules F-E, S-E

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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

U.S. Federal regulations :

SARA 313

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
1-Butanol	1	71-36-3
Xylene, mixed isomers	36	1330-20-7
Ethylbenzene	9	100-41-4

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists

: **Australia inventory (AIIIC)**: 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.

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Section 15. Regulatory information

Vietnam inventory: Not determined.

Section 16. Other information

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

Health	*	3
Flammability		3
Physical hazards		0

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 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	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 (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

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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

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Section 16. Other information

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, 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.