Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code:	**US.FE1.00B.001**
Product name	**ASTRAEPOX 053 WHITE**

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

Intended use	**PAINT - WHITE PRIMER**

1.3. Details of the supplier of the safety data sheet

Name	**ASTRA VERNICI S.R.L.**		
Full address	**Via Della Industria, 4**		
District and Country	**24052**	**Azzano San Paolo**	**(BG)**
		Italia	
	Tel.	**+39 035 530019**	
	Fax	**+39 035 531714**	
e-mail address of the competent person responsible for the Safety Data Sheet	**msds@astravernici.it**		

1.4. Emergency telephone number

For urgent inquiries refer to	**+39035530019**

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Flammable liquid, category 3	Flammable liquid and vapour.
Acute toxicity, category 4	Harmful if inhaled.
Aspiration hazard, category 1	May be fatal if swallowed and enters airways.
Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

2. Hazards identification ... / >>

P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P242	Use only non-sparking tools.
P233	Keep container tightly closed.
P280	Wear protective gloves / eye protection / face protection.
P271	Use only outdoors or in a well-ventilated area.
P264	Accurately wash thoroughly after handling.
P240	Ground / bond container and receiving equipment.
P243	Take precautionary measures against static discharge.
P241	Use explosion-proof electrical / ventilating / lighting / equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.

Response:

P331	Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P310	Immediately call a POISON CENTER / doctor.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P302+P352	IF ON SKIN: wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use dry chemical or C02 to extinguish.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents / container through a procedure in accordance with the regulations.

The mixture contains 52.25% of components of unknown acute inhalation toxicity.

2.2. Other hazards

Environmental classification as for Reg. (EC) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

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Disposal:

P501	Dispose of contents / container through a procedure in accordance with the regulations.

Information not available

3. Composition/information on ingredients

BISFENOLO (RESINA EPOSSIDICA)
BISPHENOL (EPOXY RESIN)

3.2. Mixtures

Contains:

Identification		**Conc. %**	**Classification:**
2-METHOXY-1-METHYLETHYL ACETATE			
INDEX	*607-195-00-7*	25	**Flammable liquid, category 3 H226**
EC	*203-603-9*		
CAS	*108-65-6*		
REACH Reg.	*01-2119475791-29-xxxx*		

3. Composition/information on ingredients ... / >>

BISFENOLO (RESINA EPOSSIDICA)
18.75 **Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317**

EC *682-390-8*
CAS *25036-25-3*
REACH Reg. *Non disponibile / Not available*

REACTION MASS OF ETHYLBENZENE AND M-XYLENE AND P-XYLENE
14.25 **Flammable liquid, category 3 H226, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Aspiration hazard, category 1 H304, Specific target organ toxicity - repeated exposure, category 2 H373, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335**

EC *905-562-9*
CAS
REACH Reg. *01-2119555267-33-xxxx*

ISO-BUTANOL
INDEX *603-108-00-1* 3.25 **Flammable liquid, category 3 H226, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Specific target organ toxicity - single exposure, category 3 H336**

EC *201-148-0*
CAS *78-83-1*
REACH Reg. *01-2119484609-23-xxxx*

ETHYL METHYL KETONE
INDEX *606-002-00-3* 2.25 **Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336**

EC *201-159-0*
CAS *78-93-3*
REACH Reg. *01-2119457290-43-xxxx*

N-BUTYL ACETATE
INDEX *607-025-00-1* 1.75 **Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure, category 3 H336**

EC *204-658-1*
CAS *123-86-4*
REACH Reg. *01-2119485493-29-xxxx*

XYLENE (MIXTURE OF ISOMERS)
INDEX *601-022-00-9* 1.75 **Flammable liquid, category 3 H226, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Aspiration hazard, category 1 H304, Specific target organ toxicity - repeated exposure, category 2 H373, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412**

EC *215-535-7*
CAS *1330-20-7*
REACH Reg. *01-2119488216-32-xxxx*

TRIZINC BIS(ORTHOPHOSPHATE)
INDEX *030-011-00-6* 1.25 **Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410 M=1**

EC *231-944-3*
CAS *7779-90-0*
REACH Reg. *01-2119485044-40-xxxx*

ZINC OXIDE
80,34% - metallic element
INDEX *030-013-00-7* 0.375 **Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410 M=1**

EC *215-222-5*
CAS *1314-13-2*
REACH Reg. *01-2119463881-32-xxxx*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

In case of doubt or in the presence of symptoms contact a doctor and show him this document.
In case of more severe symptoms, ask for immediate medical aid.

4. First-aid measures ... / >>

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.
INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.
INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

4.3. Indication of any immediate medical attention and special treatment needed

If symptoms occur, whether acute or delayed, consult a doctor.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

6. Accidental release measures ... / >>

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

2-METHOXY-1-METHYLETHYL ACETATE
Store in an inert atmosphere, sheletered from moisture because it hydrolises easily.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2025

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
ACGIH	-	434	100	651	150	
OEL	EU	221	50	442	100	SKIN
OSHA	USA	435	100			
CAL/OSHA	USA	435	100	655	150	
NIOSH	USA	435	100	655	150	

8. Exposure controls/personal protection ... / >>

REACTION MASS OF ETHYLBENZENE AND M-XYLENE AND P-XYLENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	221	50	442	100	SKIN
ACGIH	-	434	100	651	150	

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	275	50	550	100	SKIN
CAL/OSHA	USA	541	100	811	150	SKIN

ISO-BUTANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
ACGIH	-	152	50			
OSHA	USA	300	100			
CAL/OSHA	USA	150	50			
NIOSH	USA	150	50			

ETHYL METHYL KETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	600	200	900	300	
ACGIH	-	590	200	885	300	
ACGIH	-		75		150	SKIN
OSHA	USA	590	200			
CAL/OSHA	USA	590	200	885	300	
NIOSH	USA	590	200	885	300	

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	241	50	723	150	
ACGIH	-		50		150	
OSHA	USA	710	150			
CAL/OSHA	USA	710	150	950	200	
NIOSH	USA	710	150	950	200	

ZINC OXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
ACGIH	-	2		10		RESP
OSHA	USA	5				
OSHA	USA	15				INHAL
OSHA	USA	5				RESP
CAL/OSHA	USA	5		10		
NIOSH	USA	5		15 (C)		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

XYLENE (MIXTURE OF ISOMERS)
XILENE (MISCELA DI ISOMERI): Adopted Biological Exposure Indices (BEIs) - ACGIH (2012): Determinant: Methylhippuric acids in urine / Sampling Time: End of shift / BEI®: 1,5 g/g creatinine / Notation: none.

8.2. Exposure controls

8. Exposure controls/personal protection ... / >>

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (OSHA 29 CFR 1910.138): compatibility, degradation, permeability time.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value			Information
Appearance	liquid			
Colour	white			
Odour	solvent			
Odour threshold	not available			
pH	not available			Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Melting point / freezing point	not available			
Initial boiling point	not available			
Boiling range	not available			
Flash point	23 ≤ T ≤ 60	°C	(73,4 ≤ T ≤ 140 °F)	
Evaporation rate	not available			
Flammability	flammable liquid			
Lower explosive limit	not available			
Upper explosive limit	not available			
Vapour pressure	not available			
Vapour density	not available			
Relative density	1.61	Kg./L		
Solubility	insoluble in water			
Partition coefficient: n-octanol/water	not available			
Auto-ignition temperature	not available			
Decomposition temperature	not available			
Viscosity	> 20,5 mm2/s			Temperature: 20 °C
Explosive properties	not available			
Oxidising properties	not available			

9.2. Other information

Total solids (250°C / 482°F)	51,72 %			
VOC :	48,28 %	- 777,23	g/litre	

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10. Stability and reactivity ... / >>

2-METHOXY-1-METHYLETHYL ACETATE
Stable in normal conditions of use and storage.
With the air it may slowly develop peroxides that explode with an increase in temperature.

ETHYL METHYL KETONE
Reacts with: light metals,strong oxidants.Attacks various types of plastic materials.Decomposes under the effect of heat.
N-BUTYL ACETATE
Decomposes on contact with: water.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

XYLENE (MIXTURE OF ISOMERS)
Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May form explosive mixtures with: air.
2-METHOXY-1-METHYLETHYL ACETATE
May react violently with: oxidising substances,strong acids,alkaline metals.
ETHYL METHYL KETONE
May form peroxides with: air,light,strong oxidising agents.Risk of explosion on contact with: hydrogen peroxide,nitric acid,sulphuric acid.May react dangerously with: oxidising agents,trichloromethane,alkalis.Forms explosive mixtures with: air.
N-BUTYL ACETATE
Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides,potassium tert-butoxide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHYL METHYL KETONE
Avoid exposure to: sources of heat.
N-BUTYL ACETATE
Avoid exposure to: moisture,sources of heat,naked flames.

10.5. Incompatible materials

2-METHOXY-1-METHYLETHYL ACETATE
Incompatible with: oxidising substances,strong acids,alkaline metals.
ETHYL METHYL KETONE
Incompatible with: strong oxidants,inorganic acids,ammonia,copper,chloroform.
N-BUTYL ACETATE
Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

2-METHOXY-1-METHYLETHYL ACETATE
The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Information on likely routes of exposure

2-METHOXY-1-METHYLETHYL ACETATE
WORKERS: inhalation; contact with the skin.

N-BUTYL ACETATE
WORKERS: inhalation; contact with the skin.

11. Toxicological information ... / >>

XYLENE (MIXTURE OF ISOMERS)
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

2-METHOXY-1-METHYLETHYL ACETATE
Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

N-BUTYL ACETATE
In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

XYLENE (MIXTURE OF ISOMERS)
Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

N-BUTYL ACETATE
A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

XYLENE (MIXTURE OF ISOMERS)
Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

ACUTE TOXICITY

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Oral):	8530 mg/kg Rat
LD50 (Dermal):	> 5000 mg/kg Rat

REACTION MASS OF ETHYLBENZENE AND M-XYLENE AND P-XYLENE

LD50 (Oral):	3523 mg/kg Rat
LD50 (Dermal):	12126 mg/kg Rat
LC50 (Inhalation vapours):	27124 mg/m3 Rat

ISO-BUTANOL

LD50 (Oral):	2460 mg/kg Rat
LD50 (Dermal):	2460 mg/kg Rabbit
LC50 (Inhalation vapours):	19.2 mg/l/4h Rat

ETHYL METHYL KETONE

LD50 (Oral):	2737 mg/kg Rat
LD50 (Dermal):	6480 mg/kg Rabbit
LC50 (Inhalation vapours):	23.5 mg/l/8h Rat

N-BUTYL ACETATE

LD50 (Oral):	> 6400 mg/kg Rat
LD50 (Dermal):	> 5000 mg/kg Rabbit
LC50 (Inhalation vapours):	21.1 mg/l/4h Rat

XYLENE (MIXTURE OF ISOMERS)

LD50 (Oral):	3523 mg/kg Rat
LD50 (Dermal):	4350 mg/kg Rabbit
LC50 (Inhalation vapours):	26 mg/l/4h Rat

11. Toxicological information ... / >>

TRIZINC BIS(ORTHOPHOSPHATE)
LD50 (Oral): > 5000 mg/kg Rat - Wistar
LC50 (Inhalation mists/powders): > 5.7 mg/l Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class
Carcinogenicity Assessment:
7727-43-7 BARIUM SULFATE
ACGIH:: A4
1330-20-7 XYLENE (MIXTURE OF ISOMERS)
IARC:3
100-41-4 ETHYLBENZENE
ACGIH:: A3
IARC:2B

XYLENE (MIXTURE OF ISOMERS)
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Toxic for aspiration

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it has negative effects on the aquatic environment.

12.1. Toxicity

REACTION MASS OF ETHYLBENZENE AND M-XYLENE AND P-XYLENE
LC50 - for Fish 2.6 mg/l/96h 2.6 mg/l per p-xilene; >1.3 mg/l per mix-xilene

TRIZINC BIS(ORTHOPHOSPHATE)
LC50 - for Fish 0.78 mg/l/96h Pimephales promelas
EC50 - for Crustacea 0.86 mg/l/48h Daphnia magna

12. Ecological information ... / >>

ZINC OXIDE

LC50 - for Fish	1.1 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	1.7 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0.14 mg/l/72h Pseudokirchneriella subcapitata

12.2. Persistence and degradability

2-METHOXY-1-METHYLETHYL ACETATE

Solubility in water	> 10000 mg/l
Rapidly degradable	

ISO-BUTANOL

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

ETHYL METHYL KETONE

Solubility in water	> 10000 mg/l
Rapidly degradable	

N-BUTYL ACETATE

Solubility in water	1000 - 10000 mg/l

XYLENE (MIXTURE OF ISOMERS)

Solubility in water	100 - 1000 mg/l
Rapidly degradable	

TRIZINC BIS(ORTHOPHOSPHATE)

Solubility in water	2.7 mg/l
Degradability: information not available	

ZINC OXIDE

Solubility in water	2.9 mg/l
NOT rapidly degradable	

12.3. Bioaccumulative potential

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: n-octanol/water	1.2

ISO-BUTANOL

Partition coefficient: n-octanol/water	1

ETHYL METHYL KETONE

Partition coefficient: n-octanol/water	0.3

N-BUTYL ACETATE

Partition coefficient: n-octanol/water	2.3
BCF	15.3

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: n-octanol/water	3.12
BCF	25.9

ZINC OXIDE

BCF	> 175

12.4. Mobility in soil

ISO-BUTANOL

Partition coefficient: soil/water	0.31

N-BUTYL ACETATE

Partition coefficient: soil/water	< 3

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: soil/water	2.73

12. Ecological information ... / >>

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

Classification according to the UN model on transport of dangerous goods.

14.1. UN number

ADR / RID, IMDG, IATA: UN 1263

14.2. UN proper shipping name

ADR / RID: PAINT
IMDG: PAINT
IATA: PAINT

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO
IMDG: not marine pollutant
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 lt	Tunnel restriction code: (D/E)
	Special provision: 163, 367, 650		
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 lt	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Passengers:	Maximum quantity: 60 L	Packaging instructions: 355
	Special provision:	A3, A72, A192	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

TSCA:
All components of this product are listed on US Toxic Substances Control Act (TSCA) Inventory or are exempt from the listing / notification requirements.

Clean Air Act Section 112(b):
1330-20-7 XYLENE (MIXTURE OF ISOMERS)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
7779-90-0 TRIZINC BIS(ORTHOPHOSPHATE) (Zinc compounds)
1314-13-2 ZINC OXIDE (Zinc compounds, Zinc oxide fume)

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
78-93-3 ETHYL METHYL KETONE

EPA List of Lists:
313 Category Code:
1330-20-7 XYLENE (MIXTURE OF ISOMERS)
7727-43-7 BARIUM SULFATE (Barium compounds, Barium soluble compounds)
7779-90-0 TRIZINC BIS(ORTHOPHOSPHATE) (Zinc compounds)
1314-13-2 ZINC OXIDE (Zinc compounds, Zinc oxide fume)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1330-20-7 XYLENE (MIXTURE OF ISOMERS)
78-83-1 ISO-BUTANOL
78-93-3 ETHYL METHYL KETONE
123-86-4 N-BUTYL ACETATE

EPCRA 313 TRI:
1330-20-7 XYLENE (MIXTURE OF ISOMERS)
7727-43-7 BARIUM SULFATE (Barium compounds, Barium soluble compounds)
7779-90-0 TRIZINC BIS(ORTHOPHOSPHATE) (Zinc compounds)
1314-13-2 ZINC OXIDE (Zinc compounds, Zinc oxide fume)

RCRA Code:
1330-20-7 XYLENE (MIXTURE OF ISOMERS)
78-83-1 ISO-BUTANOL
78-93-3 ETHYL METHYL KETONE

CAA 112 (r) RMP TQ:
No component(s) listed.

15. Regulatory information ... / >>

State Regulations

Massachussetts:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
7727-43-7	BARIUM SULFATE (Barium compounds, Barium soluble compounds)
78-83-1	ISO-BUTANOL
78-93-3	ETHYL METHYL KETONE
123-86-4	N-BUTYL ACETATE
1314-13-2	ZINC OXIDE (Zinc compounds, Zinc oxide fume)

Minnesota:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
7727-43-7	BARIUM SULFATE (Barium compounds, Barium soluble compounds)
78-83-1	ISO-BUTANOL
78-93-3	ETHYL METHYL KETONE
123-86-4	N-BUTYL ACETATE
1314-13-2	ZINC OXIDE (Zinc compounds, Zinc oxide fume)

New Jersey:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
7727-43-7	BARIUM SULFATE (Barium compounds, Barium soluble compounds)
78-83-1	ISO-BUTANOL
78-93-3	ETHYL METHYL KETONE
123-86-4	N-BUTYL ACETATE
7779-90-0	TRIZINC BIS(ORTHOPHOSPHATE) (Zinc compounds)
7779-90-0	TRIZINC BIS(ORTHOPHOSPHATE) (Zinc compounds)
1314-13-2	ZINC OXIDE (Zinc compounds, Zinc oxide fume)

New York:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
78-83-1	ISO-BUTANOL
78-93-3	ETHYL METHYL KETONE
123-86-4	N-BUTYL ACETATE

Pennsylvania:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
7727-43-7	BARIUM SULFATE (Barium compounds, Barium soluble compounds)
78-83-1	ISO-BUTANOL
78-93-3	ETHYL METHYL KETONE
123-86-4	N-BUTYL ACETATE
1314-13-2	ZINC OXIDE (Zinc compounds, Zinc oxide fume)

California:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
78-83-1	ISO-BUTANOL
78-93-3	ETHYL METHYL KETONE
123-86-4	N-BUTYL ACETATE
7779-90-0	TRIZINC BIS(ORTHOPHOSPHATE) (Zinc compounds)
1314-13-2	ZINC OXIDE (Zinc compounds, Zinc oxide fume)

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

100-41-4 ETHYLBENZENE

	NSRL / MADL (µg/day)				
Hazard type	Oral	Dermal	Inhalation	Intravenous	Note
Carcinogenicity	41		54		-

International Regulations
Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: Regulation (EC) 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REACH: Regulation (EC) 1907/2006
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

16. Other information ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Product classification derives from criteria established by the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200), unless determined otherwise in Section 11 and 12. The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 14.