

Safety Data Sheet

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: Identification

Product identifier

Trade name/designation:	Xylenes Baker Analyzed BAKER ANALYZED® A.C.S. Reagent for Histological Use
Product No.:	9490
Synonymes:	none/none

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

Recommended Use	For Laboratory, Research or Manufacturing Use.
Uses advised against	Not determined.

Details of the supplier of the safety data sheet

Supplier

Avantor Performance Materials, LLC.

Street	100 Matsonford Rd, Suite 200
Postal code/City	Radnor, PA 19087, United States
Telephone	+1-855-282-6867
Telefax:	+1-610-573-2610

Emergency phone number

Telephone	+1-800-424-9300 (Chemtrec, 24 hrs/day, 7 days/week, USA and Canada)
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Preparation Information

Product Information Compliance

E-mail	SDS@avantorsciences.com
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SECTION 2: Hazard identification

Classification of the substance or mixture

Label elements

Physical hazards

Flammable liquid, category 3

Health hazards

Skin irritation, category 2

Eye irritation, category 2

Specific target organ toxicity (single exposure), category 3, Respiratory tract irritation

Specific target organ toxicity (repeated exposure), category 2⁽¹⁾

Aspiration hazard, category 1

Acute toxicity, category 4, dermal and inhalation

Target Organs

(1) no data available

Hazard pictograms



Signal word: Danger

Hazard statements

H226 - Flammable liquid and vapor.

H312+H332 - Harmful in contact with skin or if inhaled.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

H335 - May cause respiratory irritation.

Precautionary statements

Prevention:

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

P242 - Use only non-sparking tools.

Response:

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...

P331 - Do NOT induce vomiting.

P302+P352 - IF ON SKIN: Wash with plenty of water/...

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 - Call a POISON CENTER/doctor/.../if you feel unwell.

P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see ... on this label).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P370+P378 - In case of fire: Use... to extinguish.

Storage:

P405 - Store locked up.

Disposal:

P501 - Dispose of contents/container to ...

Hazards not otherwise classified (HNOC)

none/none

SECTION 3: Composition / information on ingredients

Substances

not applicable

Mixtures

Substance name	Identifier	Concentration
Xylene (mixture of isomers)	CAS No.: 1330-20-7	> 70%
Ethylbenzene	CAS No.: 100-41-4	< 30%

SECTION 4: First aid measures

General information

no data available

In case of inhalation

no data available

In case of skin contact

no data available

After eye contact

no data available

In case of ingestion

no data available

Most important symptoms/effects, acute and delayed

Symptoms no data available

Hazards no data available

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Fire fighting measures**Extinguishing media****Suitable extinguishing media**

Water spray
ABC-powder
Carbon dioxide (CO₂)
Nitrogen

Extinguishing media which must not be used for safety reasons

Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical

In case of fire may be liberated:
Pyrolysis products, toxic

Advice for firefighters

DO NOT fight fire when fire reaches explosives.
Protective equipment and precautions for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Use personal protection equipment. Special danger of slipping by leaking/spilling product. In case of major fire and large quantities: Remove persons to safety. Wear a self-contained breathing apparatus and chemical protective clothing.

Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Clean contaminated articles and floor according to the environmental legislation. Collect in closed and suitable containers for disposal.

Additional information

Clear spills immediately.

SECTION 7: Handling and storage

Precautions for safe handling

All work processes must always be designed so that the following is as low as possible:

- Inhalation
- skin contact
- Eye contact

Use extractor hood (laboratory).

If handled uncovered, arrangements with local exhaust ventilation have to be used.

If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Conditions for safe storage, including any incompatibilities

Recommended storage temperature: no data available

Keep container tightly closed and in a well-ventilated place. Keep/Store only in original container.

SECTION 8: Exposure controls/personal protection

Control parameters

Ingredient (Designation)	Regulatory information	Country	Limit value type (country of origin)	Limit value
Xylene (mixture of isomers)	NIOSH	US	LTV	435 mg/m ³ - 100 ppm
Xylene (mixture of isomers)	NIOSH	US	STV	655 mg/m ³ (1) - 150 ppm (1)
Xylene (mixture of isomers)	OSHA	US	LTV	435 mg/m ³ - 100 ppm
Ethylbenzene	NIOSH	US	LTV	435 mg/m ³ - 100 ppm
Ethylbenzene	NIOSH	US	STV	545 mg/m ³ (1) - 125 ppm (1)
Ethylbenzene	OSHA	US	LTV	435 mg/m ³ - 100 ppm

Engineering controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Personal protection equipment (PPE)

Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn.

Eye/face protection

Eye glasses with side protection

Skin protection

Wear suitable gloves. When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use.

By short-term hand contact

Suitable material:	NBR (Nitrile rubber)
Thickness of the glove material:	0,38 mm
Breakthrough time:	-

By long-term hand contact

Suitable material:	PE (polyethylene)
Thickness of the glove material:	-
Breakthrough time:	> 480 min

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Additional information

Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Environmental exposure controls

no data available

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

(a) Appearance	
Physical state:	liquid
Color:	colorless
(b) Odor:	characteristic
(c) Odor threshold:	no data available

Safety relevant basic data

(d) pH:	no data available
(e) Melting point/freezing point:	-41.5 °C
(f) Initial boiling point and boiling range:	139 °C (1013 hPa)
(g) Flash point:	29 °C (closed cup)
(h) Evaporation rate:	no data available
(i) Flammability (solid, gas):	Flammable liquid and vapor.
(j) Flammability or explosive limits	
Lower explosion limit:	1 % (v/v)
Upper explosion limit:	7 % (v/v)
(k) Vapor pressure:	6.5-9.5 hPa (20 °C)
(l) Vapor density:	no data available
(m) Density:	0.86 g/cm ³ (20 °C)
(n) Solubility(ies)	
Water solubility:	0.146-0.191 g/l (25 °C)
Soluble (g/L) in Ethanol:	no data available
(o) Partition coefficient: n-octanol/water:	<3.2
(p) Auto-ignition temperature:	>432 °C
(q) Decomposition temperature:	not applicable
(r) Viscosity	
Kinematic viscosity:	0.9 cSt (40 °C)
Dynamic viscosity:	no data available
(s) Explosive properties:	not applicable
(t) Oxidising properties:	not applicable

Other information

Bulk density:	no data available
Refraction index:	no data available
Dissociation constant:	no data available
Surface tension:	no data available
Henry's Law Constant:	no data available

SECTION 10: Stability and reactivity

Reactivity

- Reactive substance
- Ignition hazard
- Vapors may form explosive mixtures with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions

Violent reaction with:
Strong oxidizing agents.
Nitric acid
sulphuric acid

Conditions to avoid

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

Incompatible materials

no data available

Hazardous decomposition products

Carbon dioxide (CO₂)
Carbon monoxide

SECTION 11: Toxicological information
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Information on toxicological effects**Acute effects***Acute oral toxicity:*

Xylene (mixture of isomers) - LD₅₀: > 2840 mg/kg - Rat - (Merck KGaA)

Ethylbenzene - LD₅₀: > 3500 mg/kg - Rat - (IUCLID)

Acute dermal toxicity:

Xylene (mixture of isomers) - LD₅₀: < 4350 mg/kg - Rabbit - (IUCLID)

Ethylbenzene - LD₅₀: > 15354 mg/kg - Rabbit - (IUCLID)

Acute inhalation toxicity:

Xylene (mixture of isomers) - LC₅₀: 29.08 mg/l - Rat - (Japan GHS Basis for Classification Data)

Ethylbenzene - LC₅₀: 17.2 mg/l - Rat - (IUCLID)

Irritant and corrosive effects*Primary irritation to the skin:*

Causes skin irritation.

Irritation to eyes:

Causes serious eye irritation.

Irritation to respiratory tract:

May cause respiratory irritation.

Respiratory or skin sensitization

In case of skin contact: not sensitizing

In case of inhalation: not sensitizing

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**Carcinogenicity**

No indication of human carcinogenicity.

Germ cell mutagenicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

No indications of human reproductive toxicity exist.

Aspiration hazard

May be fatal if swallowed and enters airways.

Other adverse effects

no data available

SECTION 12: Ecological information**Ecotoxicity****Fish toxicity:**

Xylene (mixture of isomers) - LC50: 15.7 mg/l (96 h) - R.C.Bahner and D.J.Hansen (Eds.), Aquatic Toxicology and Hazard Assessment, 8th Symposium, ASTM STP 891, Philadelphia, PA :193-212

Xylene (mixture of isomers) - LC50: 15.7 mg/l (96 h) - R.C.Bahner and D.J.Hansen (Eds.), Aquatic Toxicology and Hazard Assessment, 8th Symposium, ASTM STP 891, Philadelphia, PA :193-212

Daphnia toxicity:

Xylene (mixture of isomers) - LC50: 8.5 mg/l (48 h) - Tatem, H.E., B.A. Cox, and J.W. Anderson 1978. The Toxicity of Oils and Petroleum Hydrocarbons to Estuarine Crustaceans. Estuar.Coast.Mar.Sci. 6(4):365-373

Xylene (mixture of isomers) - LC50: 8.5 mg/l (48 h) - Tatem, H.E., B.A. Cox, and J.W. Anderson 1978. The Toxicity of Oils and Petroleum Hydrocarbons to Estuarine Crustaceans. Estuar.Coast.Mar.Sci. 6(4):365-373

Algae toxicity:

no data available

Bacteria toxicity:

no data available

Persistence and degradability

no data available

Bioaccumulative potential

Partition coefficient: n-octanol/water: <3.2

Mobility in soil:

no data available

Other adverse effects

no data available

SECTION 13: Disposal considerations**Waste treatment methods****Appropriate disposal / Product**

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package

Dispose according to legislation. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (DOT)**

UN-No.:	UN1307
Proper Shipping Name:	XYLENES
Class(es):	3
Hazard label(s):	3
Packing group:	III
Environmental hazards:	No
Marine pollutant:	No
Special precautions for user:	

Sea transport (IMDG)

UN-No.:	1307
Proper Shipping Name:	XYLENES
Class(es):	3
Hazard label(s):	3
Packing group:	III
Environmental hazards:	No
Marine pollutant:	No
Special precautions for user:	
Segregation group:	-
EmS-No.	F-E S-D

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not relevant

Air transport (ICAO-TI / IATA-DGR)

UN-No.:	1307
Proper Shipping Name:	XYLENES
Class(es):	3
Classification code:	
Hazard label(s):	3
Packing group:	III

Special precautions for user:

SECTION 15: Regulatory information

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

National regulations

Toxic Substances Control Act (TSCA)

- Xylene (mixture of isomers) - CAS No.: 1330-20-7
- Ethylbenzene - CAS No.: 100-41-4

SARA 313 Components

- Xylene (mixture of isomers) - CAS No.: 1330-20-7
- Ethylbenzene - CAS No.: 100-41-4

US State Regulations

Massachusetts Right To Know Components

- Xylene (mixture of isomers) - CAS No.: 1330-20-7
- Ethylbenzene - CAS No.: 100-41-4

Pennsylvania Right To Know Components

- Xylene (mixture of isomers) - CAS No.: 1330-20-7
- Ethylbenzene - CAS No.: 100-41-4

New Jersey Right To Know Components

- Xylene (mixture of isomers) - CAS No.: 1330-20-7
- Ethylbenzene - CAS No.: 100-41-4

California Prop. 65 Components

WARNING:

This product can expose you to chemicals including Ethylbenzene which is known to the State of California to cause cancer.

For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygienists
DOT - Department of Transportation
IARC - International Agency for Research on Cancer
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
PEL - Permissible Exposure Limit
STV - Short Term Value
SVHC - Substances of Very High Concern
TDG - Transport of Dangerous Goods
TLV - Threshold Limit Value
vPvB - very Persistent, very Bioaccumulative

Key literature references and sources for data

This Safety Data Sheet has been prepared based on information available for public as TOXNET information, European Chemicals Agency (ECHA) substance dossier, papers from international cancer research institutes (IARC Monographs), U.S. National Toxicology Program data, U.S. Agency for Toxic Substances and Disease Control (ATSDR), PubChem websites and SDS from our raw material manufacturers.

Revision date	Version	Print date
10.01.2022	2.1	2022-01-10

Additional information

Indication of changes: general update

If you need an explanation of the change, contact the supplier (SDS@avantorsciences.com).

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