

SAFETY DATA SHEET

ASTM Colour Reference Standard, 134020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

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1.1. Product identifier
   ▼ Trade name
     ASTM Colour Reference Standard, 134020
  Product no.
     134020
1.2. Relevant identified uses of the substance or mixture and uses advised against
  Relevant identified uses of the substance or mixture
     Laboratory use
     Restricted to professional users.
  Uses advised against
     None known.
1.3. Details of the supplier of the safety data sheet
  Company and address
     ARO Scientific Ltd
     Unit 1 Bridgeway Business Park,
     Ditton Road
     WA8 0QE Widnes
     England
     +44 (0)151 424 2828
  Contact person
     Technical Help
  E-mail
     technical@aroscientific.com
  Revision
     06/12/2023
  SDS Version
     2.0
  Date of previous version
     08/10/2023 (1.0)
1.4. Emergency telephone number
  Contact The National Poisons Information Service (dial 111, 24 h service).
  See section 4 "First aid measures".
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SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law. 2.1. Classification of the substance or mixture

Asp. Tox. 1; H304, May be fatal if swallowed and enters airways.



Hazard pictogram(s)



Signal word Danger Hazard statement(s) May be fatal if swallowed and enters airways. (H304) Precautionary statement(s)



G	en	er	al
	<u> </u>		<u>u</u>

Prevention

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Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor. (P301+P310) Do NOT induce vomiting. (P331)

Storage

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Disposal

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances

White mineral oil (petroleum) p-xylene;m-xylene;xylene;o-xylene

Additional labelling

Not applicable.

2.3. Other hazards

▼ Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
White mineral oil (petroleum)	CAS No.: 8042-47-5 EC No.: 232-455-8 UK-REACH: Index No.:	95-100%	Asp. Tox. 1, H304	[19]
p-xylene;m-xylene;xylene;o- xylene	CAS No.: 1330-20-7 EC No.: 215-535-7 UK-REACH: Index No.: 601-022-00-9	1-3%	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412	[1]

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.



Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Do not induce vomiting! If vomiting occurs, keep head facing down so that vomit does not get into the lungs. Call a doctor or ambulance. Symptoms of chemical pneumonia can appear after several hours. People who have swallowed the product should therefore be kept under medical attention for at least 48 hours.

Burns

Not applicable.

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

This product contains substances that can cause chemical pneumonia if swallowed. Symptoms of chemical pneumonia may appear after several hours.

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

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist. Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances. Ensure adequate ventilation, especially in confined areas. Contaminated areas may be slippery.

6.2. Environmental precautions Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

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.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling



Avoid direct contact with the product. Avoid contact during pregnancy and while nursing. Smoking, drinking and consumption of food is not allowed in the work area. See section 8 "Exposure controls/personal protection" for information on personal protection. 7.2. Conditions for safe storage, including any incompatibilities Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Recommended storage material Always store in containers of the same material as the original container. Storage temperature No specific requirements Incompatible materials Strong acids, strong bases, strong oxidizing agents, and strong reducing agents. 7.3. Specific end use(s) This product should only be used for applications quoted in section 1.2. SECTION 8: Exposure controls/personal protection

8.1. Control parameters

p-xylene;m-xylene;xylene;o-xylene Long term exposure limit (8 hours) (ppm): 50 Long term exposure limit (8 hours) (mg/m³): 220 Short term exposure limit (15 minutes) (ppm): 100 Short term exposure limit (15 minutes) (mg/m³): 441 Annotations: BMVG = Biological Monitoring Guidance Value exists Sk = Can be absorbed through the skin and lead to systemic toxicity.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

p-xylene;m-xylene;xylene;o-xylene

p xylene, m xylene, xylene, o xylene		
Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	125 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	212 mg/kg bw/day
Long term – Local effects - General population	Inhalation	65.3 mg/m ³
Long term – Local effects - Workers	Inhalation	221 mg/m³
Long term – Systemic effects - General population	Inhalation	65.3 mg/m³
Long term – Systemic effects - Workers	Inhalation	221 mg/m³
Short term – Local effects - General population	Inhalation	260 mg/m³
Short term – Local effects - Workers	Inhalation	442 mg/m³
Short term – Systemic effects - General population	Inhalation	260 mg/m³
Short term – Systemic effects - Workers	Inhalation	442 mg/m³
Long term – Systemic effects - General population	Oral	5 mg/kg bw/day
White mineral oil (petroleum)		
Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	93.02 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	217.05 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	34.78 mg/m ³

Inhalation

Oral

PNEC

Long term - Systemic effects - Workers

Long term - Systemic effects - General population

164.56 mg/m³

25 mg/kg bw/day



p-xylene;m-x	lanavalana	
D-XVIEIIE 111-X	viene xviene	- XVIENE

p-xylene,m-xylene,xylene,o-xylene		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		44-327 μg/L
Freshwater sediment		2.52-12.46 mg/kg
Intermittent release (freshwater)		10-327 µg/L
Intermittent release (marine water)		1 µg/L
Marine water		4.4-327 μg/L
Marine water sediment		252-12460 μg/kg
Sewage treatment plant		1.6-6.58 mg/L
Soil		852-2310 μg/kg

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis. General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

▼ Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

	Туре	Class	Colour	Standards	
	Respiratory protection is not needed in the event of adequate ventilation.				
v S	kin protection				
	Recommended	Type/Category	Standards		
	Dedicated work clothing should be worn.	-	-		R
V H	and protection				
	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
	Nitrile	0,3	> 480	EN374-2, EN374-3, EN388	

Eye protection



Туре	Standards	
Safety glasses	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state Liquid
Colour
Testing not relevant or not possible due to the nature of the product.
Odour / Odour threshold Testing not relevant or not possible due to the nature of the product.
pH Testing not velocent or not pessible due to the network of the product
Testing not relevant or not possible due to the nature of the product. Density (g/cm ³)
Testing not relevant or not possible due to the nature of the product.
Kinematic viscosity
Testing not relevant or not possible due to the nature of the product. Particle characteristics
Does not apply to liquids.
Phase changes
Melting point/Freezing point (°C) Testing not relevant or not possible due to the nature of the product.
Softening point/range (waxes and pastes) (°C) Does not apply to liquids.
Boiling point (°C)
Testing not relevant or not possible due to the nature of the product.
Vapour pressure Testing not relevant or not possible due to the nature of the product.
Relative vapour density Testing not relevant or not possible due to the nature of the product.
Decomposition temperature (°C) Testing not relevant or not possible due to the nature of the product.
Data on fire and explosion hazards
Flash point (°C)
Testing not relevant or not possible due to the nature of the product. Flammability (°C)
Testing not relevant or not possible due to the nature of the product.
Auto-ignition temperature (°C)
Testing not relevant or not possible due to the nature of the product. Lower and upper explosion limit (% v/v)
Testing not relevant or not possible due to the nature of the product.
Solubility
Solubility in water Testing not relevant or not possible due to the nature of the product.
n-octanol/water coefficient
Testing not relevant or not possible due to the nature of the product.
Solubility in fat (g/L) Testing not relevant or not possible due to the nature of the product.
9.2. Other information
Oxidizing properties
Testing not relevant or not possible due to the nature of the product.
Other physical and chemical parameters No data available.



SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Acute toxicity Product/substance Test method: Species: Route of exposure: Test: Result:	White mineral oil (petroleum) OECD 401 Rat Oral LD50 >5000 mg/kg	
Product/substance Test method: Species: Route of exposure: Test: Result:	White mineral oil (petroleum) OECD 402 Rabbit Dermal LD50 >2000 mg/kg	
Product/substance Test method: Species: Route of exposure: Test: Result:	White mineral oil (petroleum) OECD 403 Rat Inhalation LC50 >5 mg/L	
Serious eye damage/irritad Based on available data Respiratory sensitisation Based on available data Skin sensitisation Based on available data Germ cell mutagenicity Based on available data Carcinogenicity Based on available data Reproductive toxicity Based on available data STOT-single exposure Based on available data STOT-repeated exposure	a, the classification criteria are not met. tion a, the classification criteria are not met. a, the classification criteria are not met. a, the classification criteria are not met. b, the classification criteria are not met. c, the classification criteria are not met.	



May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Long term effects

None known.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

p-xylene;m-xylene;xylene;o-xylene has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

- No data available.
- 12.2. Persistence and degradability No data available.
- 12.3. Bioaccumulative potential No data available.
- 12.4. Mobility in soil

No data available.

- 12.5. ▼ Results of PBT and vPvB assessment
 - This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.
- 12.6. Endocrine disrupting properties
- This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.
- 12.7. Other adverse effects None known.

SECTION 13: Disposal considerations

Waste treatment methods

Product is not covered by regulations on dangerous waste.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

Not applicable.

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / I	14.2 D UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
ΙΑΤΑ	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments No data available.



SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

Additional information Not applicable.

Sources

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H226, Flammable liquid and vapour.

H304, May be fatal if swallowed and enters airways.

H312, Harmful in contact with skin.

- H315, Causes skin irritation.
- H319, Causes serious eye irritation.
- H332, Harmful if inhaled.

H335, May cause respiratory irritation.

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

H412, Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

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) OECD = Organisation for Economic Co-operation and Development PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail RRN = REACH Registration Number SCL = A specific concentration limit SVHC = Substances of Very High Concern STOT-RE = Specific Target Organ Toxicity - Repeated Exposure STOT-SE = Specific Target Organ Toxicity - Single Exposure TWA = Time weighted average UN = United Nations UVBC = Unknown or variable composition, complex reaction products or of biological materials VOC = Volatile Organic Compound vPvB = Very Persistent and Very Bioaccumulative Additional information The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

▼ The safety data sheet is validated by **Technical Help**

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en