according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: June 04, 2020

1 Identification · Product identifier Trade name: QAC Indicator Solution · Product code: DUQA3576-A Recommended use and restriction on use · Recommended use: Laboratory chemicals Restrictions on use: No relevant information available. • Details of the supplier of the Safety Data Sheet · Manufacturer/Supplier: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 USA Tel +1 (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com Distributor: Dubois Chemicals Inc. 3630 East Kemper Rd. Cincinnati, OH 45241 (800) 438-2647 · Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International) 2 Hazard(s) identification · Classification of the substance or mixture Acute Tox, 4 H302 Harmful if swallowed. Label elements · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). Hazard pictograms: GHS07 · Signal word: Warning · Hazard statements: H302 Harmful if swallowed. · Precautionary statements: P264 Wash thoroughly after handling. Do not eat, drink or smoke when using this product. P270 P301+P312 If swallowed: Call a poison center/doctor if you feel unwell. P330 Rinse mouth. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Cont'd. on page 2)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: June 04, 2020

Trade name: QAC Indicator Solution

(Cont'd. of page 1)

85%

10%

5%

· Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

• Chemical characterization: Mixtures

· Components:

7732-18-5 Water

115-39-9 tetrabromophenol blue

547-58-0 sodium 4-(4-dimethylaminophenylazo)benzenesulphonate

· Additional information: For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

• Description of first aid measures

· After inhalation: Supply fresh air; consult doctor in case of complaints.

• After skin contact:

Wash with soap and water.

If skin irritation is experienced, consult a doctor.

- · After eye contact:
- Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

May cause gastro-intestinal irritation if ingested.

· Danger: Harmful if swallowed.

· Indication of any immediate medical attention and special treatment needed:

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

[•] Extinguishing media

• Suitable extinguishing agents: Use fire fighting measures that suit the environment.

- · For safety reasons unsuitable extinguishing agents: No relevant information available.
- Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

(Cont'd. on page 3)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: June 04, 2020

Trade name: QAC Indicator Solution

(Cont'd. of page 2)

Personal precautions, protective equipment and emergency procedures Isolate area and prevent access.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

• Environmental precautions Avoid release to the environment.

[•] Methods and material for containment and cleaning up

Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· Handling

• Precautions for safe handling:

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

• Conditions for safe storage, including any incompatibilities

• Requirements to be met by storerooms and receptacles: Store in a cool location.

Due to photo-sensitivity, store product in brown-glass receptacles.

Information about storage in one common storage facility:

Do not store together with alkalis (caustic solutions).

Store away from foodstuffs.

• Further information about storage conditions:

Keep containers tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

[·] Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

• Exposure controls

• Engineering measures Provide adequate ventilation.

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Engineering controls: Provide adequate ventilation.

(Cont'd. on page 4)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: June 04, 2020

Trade name: QAC Indicator Solution (Cont'd. of page 3) • Breathing equipment: Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. • Protection of hands: Gloves not required under normal conditions of use. • Material of gloves Nitrile rubber, NBR Butvl rubber. BR Neoprene gloves Natural rubber, NR Sensibilization by the components in the glove materials is possible. Eye protection: Safety glasses Follow relevant national guidelines concerning the use of protective eyewear. · Body protection: Not required under normal conditions of use. · Limitation and supervision of exposure into the environment No relevant information available. · Risk management measures No relevant information available.

Physical and chemical properties				
Information on basic physical a	nd chemical properties			
Appearance:				
Form:	Liquid			
Color:	Blue			
· Odor:	Odorless			
· Odor threshold:	Not determined.			
· pH-value:	Not determined.			
· Melting point/Melting range:	Not determined.			
· Boiling point/Boiling range:	>100 °C (>212 °F)			
· Flash point:	The product is not flammable.			
· Flammability (solid, gaseous):	Not applicable.			
· Auto-ignition temperature:	Not determined.			
· Decomposition temperature:	Not determined.			
· Danger of explosion:	Product does not present an explosion hazard.			
· Explosion limits				
Lower:	Not determined.			
Upper:	Not determined.			
 Oxidizing properties: 	Non-oxidizing.			
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)			
· Density at 20 °C (68 °F):	1.03 g/cm³ (8.6 lbs/gal)			
· Relative density:	Not determined.			
		(Cont'd. on page		

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: June 04, 2020

		(Cont'd. of pa
Vapor density:	Not determined.	
Evaporation rate:	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octano	•	
Viscosity		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Other information	No relevant information available.	
Reactivity: No relevant information		
Thermal decomposition / cond	er normal temperatures and pressures. Jitions to be avoided:	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st	er normal temperatures and pressures. litions to be avoided: ored according to specifications.	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous relevant	er normal temperatures and pressures. ditions to be avoided: ored according to specifications. actions	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous re Toxic fumes may be released if	er normal temperatures and pressures. litions to be avoided: ored according to specifications.	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous re Toxic fumes may be released if	er normal temperatures and pressures. ditions to be avoided: ored according to specifications. actions	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous re Toxic fumes may be released if Conditions to avoid	er normal temperatures and pressures. ditions to be avoided: ored according to specifications. actions	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous re Toxic fumes may be released if Conditions to avoid Excessive heat. Direct sunlight.	er normal temperatures and pressures. ditions to be avoided: ored according to specifications. actions heated above the decomposition point.	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous rea Toxic fumes may be released if Conditions to avoid Excessive heat. Direct sunlight. Incompatible materials Alka Hazardous decomposition	er normal temperatures and pressures. Jitions to be avoided: ored according to specifications. actions heated above the decomposition point. lis	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous rea Toxic fumes may be released if Conditions to avoid Excessive heat. Direct sunlight. Incompatible materials Alka Hazardous decomposition Under fire conditions only:	er normal temperatures and pressures. Jitions to be avoided: ored according to specifications. actions heated above the decomposition point. lis products	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous re Toxic fumes may be released if Conditions to avoid Excessive heat. Direct sunlight. Incompatible materials Alka Hazardous decomposition Under fire conditions only: Carbon monoxide and carbon di	er normal temperatures and pressures. Jitions to be avoided: ored according to specifications. actions heated above the decomposition point. lis products	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous re Toxic fumes may be released if Conditions to avoid Excessive heat. Direct sunlight. Incompatible materials Alka Hazardous decomposition Under fire conditions only: Carbon monoxide and carbon di Possible in traces:	er normal temperatures and pressures. Jitions to be avoided: ored according to specifications. actions heated above the decomposition point. lis products	
Reactivity: No relevant informa Chemical stability: Stable under Thermal decomposition / cond No decomposition if used and st Possibility of hazardous re Toxic fumes may be released if Conditions to avoid Excessive heat. Direct sunlight. Incompatible materials Alka Hazardous decomposition Under fire conditions only: Carbon monoxide and carbon di	er normal temperatures and pressures. Jitions to be avoided: ored according to specifications. actions heated above the decomposition point. lis products	

11 Toxicological information

[·] Information on toxicological effects

· Acute toxicity: Harmful if swallowed.

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 1200 mg/kg (rat)

547-58-0 sodium 4-(4-dimethylaminophenylazo)benzenesulphonate

Oral LD50 60 mg/kg (rat)

• Primary irritant effect:

 \cdot On the skin: Based on available data, the classification criteria are not met.

· On the eye: Based on available data, the classification criteria are not met.

• Sensitization: Based on available data, the classification criteria are not met.

(Cont'd. on page 6)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: June 04, 2020

Trade name: QAC Indicator Solution

(Cont'd. of page 5)

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye contact.

Skin contact.

• Germ cell mutagenicity: Based on available data, the classification criteria are not met.

· Carcinogenicity: Based on available data, the classification criteria are not met.

• **Reproductive toxicity:** Based on available data, the classification criteria are not met.

• STOT-single exposure: Based on available data, the classification criteria are not met.

· STOT-repeated exposure: Based on available data, the classification criteria are not met.

· Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

[·] Toxicity

· Aquatic toxicity No relevant information available.

· Persistence and degradability No relevant information available.

· **Bioaccumulative potential:** No relevant information available.

• Mobility in soil: No relevant information available.

• Additional ecological information

· General notes:

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· Other adverse effects No relevant information available.

13 Disposal considerations

Uncleaned packagings

• Recommendation: Disposal must be made according to official regulations.

· UN-Number		
· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
· UN proper shipping name		
· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
[·] Transport hazard class(es)		

Safety Data Sheet according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: June 04, 2020

		(Cont'd. of pag
DOT, ADR/RID/ADN, IMDG, IATA Class	Not regulated.	
Packing group DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
Environmental hazards	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	

15 Regulatory information

	ted States (USA)
· SAR	tion 302 (extremely hazardous substances):
	e of the ingredients are listed.
· Sect	tion 313 (Specific toxic chemical listings):
	e of the ingredients are listed.
TSC	A (Toxic Substances Control Act)
All in	ngredients are listed or exempt.
· Prop	position 65 (California)
· Che	micals known to cause cancer:
None	e of the ingredients are listed.
· Che	micals known to cause developmental toxicity for females:
None	e of the ingredients are listed.
· Che	micals known to cause developmental toxicity for males:
None	e of the ingredients are listed.
· Che	micals known to cause developmental toxicity:
None	e of the ingredients are listed.
· EPA	A (Environmental Protection Agency):
None	e of the ingredients are listed.
·IARC	C (International Agency for Research on Cancer):
None	e of the ingredients are listed.
· Cana	adian Domestic Substances List (DSL):
All in	ngredients listed on DSL or NDSL.

16 Other information

(Cont'd. on page 8)

٦

Safety Data Sheet according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Г

Revision: June 04, 2020

Trade name: QAC Indicator Solution
(Cont'd. of page 7) This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
 Abbreviations and acronyms: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent DOSIHA: Occupational Safety & Health Administration Acute Tox. 3: Acute toxicity – Category 3 Acute Tox. 4: Acute toxicity – Category 4 Sources Website, European Chemicals Agency (echa.europa.eu) Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do) Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers SDS Prepared by: ChemTel 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtel.com