

Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

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

· Product identifier

· Trade name: AQT for RI Test Solutions Kit, Ampule 2

· Part number: US-700002391-2

- · Application of the substance / the mixture Laboratory chemicals
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: ULTRA Scientific, inc.

250 Smith Street

North Kingstown, RI 02852

USA

· Information department:

Telephone: (401) 294-9400 Fax: (401) 295-2300

E-mail: regulatory@ultrasci.com · Emergency telephone number:

US: (800) 424-9300

Outside US: (703) 527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

STOT SE 1 H370 Causes damage to organs.



Acute Tox. 4 H332 Harmful if inhaled.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- $\cdot \ Hazard \ pictograms$







GHS02 GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling: methanol
- · Hazard statements

Highly flammable liquid and vapor.

Harmful if inhaled.

(Contd. on page 2)



Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

(Contd. of page 1)

Causes damage to organs.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

In case of fire: Use for extinction: CO2, powder or water spray.

Store locked up.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 3 Fire = 3

Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = *3

Fire = 3

REACTIVITY 0 Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description:** Mixture of the substances listed below with nonhazardous additions.
- · Dangerous components:

67-56-1 methanol

19.1%

4 First-aid measures

- · Description of first aid measures
- General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 3)



Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

(Contd. of page 2)

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- \cdot Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 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.

· Protective Action Criteria for Chemicals

| · PAC-1: | |
|------------------|-----------|
| 67-56-1 methanol | 530 ppm |
| · PAC-2: | |
| 67-56-1 methanol | 2,100 ppm |
| · PAC-3: | |
| 67-56-1 methanol | 7200* ppm |

7 Handling and storage

- · Handling:
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

(Contd. on page 4)



Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

(Contd. of page 3)

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters

· Components with limit values that require monitoring at the workplace:

67-56-1 methanol

| PEL | Long-term value: 260 mg/m³, 200 ppm |
|-----|--|
| REL | Short-term value: 325 mg/m ³ , 250 ppm |
| | Long-term value: 260 mg/m³, 200 ppm Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin |
| TLV | Short-term value: 328 mg/m³, 250 ppm Long-term value: 262 mg/m³, 200 ppm Skin; BEI |

· Ingredients with biological limit values:

67-56-1 methanol

BEI 15 mg/L

Medium: urine Time: end of shift

Parameter: Methanol (background, nonspecific)

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

chemical mixture.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

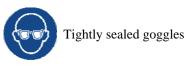
(Contd. on page 5)



Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

· Eye protection:



(Contd. of page 4)

| Physical and chemical proper | ties |
|---|--|
| · Information on basic physical and c | hemical properties |
| · General Information | nemedi properties |
| · Appearance: | |
| Form: | Fluid |
| Color: | According to product specification |
| · Odor: | Characteristic |
| · Odor threshold: | Not determined. |
| · pH-value: | Not determined. |
| · Change in condition | |
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 64 °C (147 °F) |
| · Flash point: | 9 °C (48 °F) |
| · Flammability (solid, gaseous): | Not applicable. |
| · Ignition temperature: | 455 °C (851 °F) |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
| · Explosion limits: | |
| Lower: | 5.5 Vol % |
| Upper: | 44.0 Vol % |
| · Vapor pressure at 20 °C (68 °F): | 100 hPa (75 mm Hg) |
| • Density at 20 °C (68 °F): | 0.96185 g/cm³ (8.027 lbs/gal) |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with | |
| Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/wate | er): Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 19.1 % |
| Water: | 80.9 % |



Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

(Contd. of page 5)

VOC content: 19.1 %

183.7 g/l / 1.53 lb/gl

• **Other information** No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

ATE (Acute Toxicity Estimates)

Inhalative LC50/4 h 15.7 mg/L

| 67-56-1 | methanol |
|---------|----------|
| | |

| Oral | LD50 | 5628 mg/kg (rat) |
|--------|------|----------------------|
| Dermal | LD50 | 15800 mg/kg (rabbit) |

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Harmful

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

58-08-2 caffeine

3

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.

(Contd. on page 7)



Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

(Contd. of page 6)

- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.

| 4 4 70 | | | |
|--------|---------|------|-----|
| 1431 | ranspor | orma | non |

| UN-Number | | IIN | I_N ₁ | ıml | 1er |
|-------------------------------|--|-----|------------------|-----|-----|
|-------------------------------|--|-----|------------------|-----|-----|

· **DOT, IMDG, IATA** UN1993

· UN proper shipping name

· **DOT** Flammable liquids, n.o.s. (Methanol)

· **IMDG, IATA** FLAMMABLE LIQUID, N.O.S. (METHANOL)

- · Transport hazard class(es)
- · DOT



· Class 3 Flammable liquids

· Label

· IMDG, IATA



· Class 3 Flammable liquids

· Label

· Packing group

· DOT, IMDG, IATA

• Environmental hazards: Not applicable.

· Special precautions for user Warning: Flammable liquids

• Danger code (Kemler): 33

• EMS Number: F-E,S-E

(Contd. on page 8)



Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

| | (Contd. of page |
|---|---|
| · Stowage Category | В |
| · Transport in bulk according to Annex II MARPOL73/78 and the IBC Code | |
| | Not applicable. |
| · Transport/Additional information: | |
| · DOT | |
| · Quantity limitations | On passenger aircraft/rail: 5 L |
| - | On cargo aircraft only: 60 L |
| · IMDG | |
| · Limited quantities (LQ) | 1L |
| · Excepted quantities (EQ) | Code: E2 |
| | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 500 ml |
| · UN "Model Regulation": | UN 1993 FLAMMABLE LIQUIDS, N.O.S. (METHANOL), 3, II |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

67-56-1 methanol

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

67-56-1 methanol

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 9)

(Contd. of page 8)



Safety Data Sheet acc. to OSHA HCS

Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

· Hazard pictograms







GHS02 G

GHS07 GHS0

- · Signal word Danger
- · Hazard-determining components of labeling:

methanol

· Hazard statements

Highly flammable liquid and vapor.

Harmful if inhaled.

Causes damage to organs.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

In case of fire: Use for extinction: CO2, powder or water spray.

Store locked up.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

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.

- · Department issuing SDS: Document Control / Regulatory
- · Contact: regulatory@ultrasci.com
- · Date of preparation / last revision 03/11/2017 / -
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

(Contd. on page 10)



Printing date 03/11/2017 Version Number 1 Reviewed on 03/11/2017

Trade name: AQT for RI Test Solutions Kit, Ampule 2

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit BEI: Biological Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2 Acute Tox. 4: Acute toxicity – Category 4

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

(Contd. of page 9)

US