SAFETY DATA SHEET



MTRAQ REAGENT Δ4 50U

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

1.1 Product identifier

Product name : MTRAQ REAGENT Δ4 50U

Product type : Liquid.

Other means of : Not available.

identification

Product part number : 4398558

Kit name: MTRAQ REAGENT Δ4 50 UNIT PACK

Kit part number : 4427698

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

Product use : Research and Development Area of application : Professional applications.

Uses advised against

None identified.

1.3 Details of the supplier of the safety data sheet

AB Sciex UK Limited

21F18, 21 Mereside, Alderley Park

Macclesfield, Cheshire

SK10 4TG United Kingdom

Telephone no.: 00800 2255 2279

e-mail address of person : msds.inquiry@sciex.com

responsible for this SDS

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : CHEMTREC: +44 20 3807 3798

Supplier

Telephone number : 1-877-740-2129 (8:30A PT - 5:00P PT)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Fam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Corr. 1, H314 Eye Dam. 1, H318

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 1/16

SECTION 2: Hazards identification

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity

: 5.9 percent of the mixture consists of component(s) of unknown acute oral toxicity 5.9 percent of the mixture consists of component(s) of unknown acute dermal toxicity 5.9 percent of the mixture consists of component(s) of unknown acute inhalation

toxicity

Ingredients of unknown ecotoxicity

: Contains 5.9% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms







Signal word

: Danger

Hazard statements

: H225 - Highly flammable liquid and vapour.

H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.

H314 - Causes severe skin burns and eye damage.

Precautionary statements

Prevention

Response

: P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated

Storage

: Not applicable.

clothing. Rinse skin with water.

Disposal

: \$\overline{\psi}501\$ - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients

: acetonitrile

2,5-Pyrrolidinedione, 1-[[(4-methyl-1-piperazinyl-1-15N-2,3-13C2)acetyl-2-13C]oxy]-

ditrifluoroacetate

Supplemental label

elements

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

: Not applicable.

Tactile warning of danger

: Not applicable.

2.3 Other hazards

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 2/16

SECTION 2: Hazards identification

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Туре
acetonitrile 2,5-Pyrrolidinedione, 1-[[(4-methyl-	EC: 200-835-2 CAS: 75-05-8 Index: 608-001-00-3	≥90 ≤10	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 Skin Irrit. 2, H315	[1] [2]
1-piperazinyl-1-15N-2,3-13C2) acetyl-2-13C]oxy]- ditrifluoroacetate			Eye Irrit. 2, H319 STOT SE 3, H335 See Section 16 for	
			the full text of the H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- 11 Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

Eet medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation

: Eet medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 3/16

SECTION 4: First aid measures

for 48 hours.

Skin contact

: Set medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

Eet medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion: Adverse symptoms may include the following:

stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 4/16

SECTION 5: Firefighting measures

Hazards from the substance or mixture

: Fighly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides

halogenated compounds

Cyanides

hydrogen fluoride

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 5/16

MTRAQ REAGENT Δ4 50U

SECTION 6: Accidental release measures

6.4 Reference to other sections

: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

: Fut on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from alkalis. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

	Notification and MAPP threshold	Safety report threshold
₱5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 6/16

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
acetonitrile	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 102 mg/m³ 15 minutes. STEL: 60 ppm 15 minutes. TWA: 40 ppm 8 hours. TWA: 68 mg/m³ 8 hours. EU OEL (Europe, 10/2019). Absorbed through skin. Notes: list of indicative occupational exposure limit values
	TWA: 40 ppm 8 hours. TWA: 70 mg/m³ 8 hours.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
acetonitrile	DNEL	Short term Oral	0.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4.8 mg/m ³	General population	Local
	DNEL	Long term Inhalation	4.8 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	22 mg/m³	General population	Local
	DNEL	Long term Dermal	32.2 mg/ kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	68 mg/m³	Workers	Local
	DNEL	Long term Inhalation	68 mg/m³	Workers	Local
	DNEL	Short term Inhalation	68 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	68 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	220 mg/m ³	General population	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 7/16

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

: Not available.

9.1 Information on basic physical and chemical properties

Appearance

Odour threshold

Physical state : Liquid.
Colour : ▼ellow./Pink
Odour : Not available.

pH : 2⁄

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 8/16

SECTION 9: Physical and chemical properties

Melting point/freezing point : Not available.

: >36°C

Initial boiling point and boiling

range

: Closed cup: <23°C

: Not available. **Evaporation rate** Flammability (solid, gas) : Not applicable. **Upper/lower flammability or** : Not available.

explosive limits

Flash point

 Not available. Vapour pressure : Not available. Vapour density **Relative density** : Not available. Solubility(ies) : Not available.

Partition coefficient: n-octanol/ : Not applicable.

water

Auto-ignition temperature Decomposition temperature

: Not available. : Not available.

Viscosity : Not available. : Not available. **Explosive properties** : Not available. **Oxidising properties**

9.2 Other information

Physical/chemical properties

: No additional information.

comments

SECTION 10: Stability and reactivity

10.1 Reactivity No specific test data related to reactivity available for this product or its ingredients.

: The product is stable. 10.2 Chemical stability

10.3 Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.

10.4 Conditions to avoid

: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Protect from moisture.

10.5 Incompatible materials

Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.

Reactive or incompatible with the following materials:

alkalis

oxidising materials

Reactive or incompatible with the following materials: reducing materials and metals.

Aluminium.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Date of issue/Date of revision : 21/02/2022 Date of previous issue :01/06/2012 Version: 3 9/16

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
I.	LC50 Inhalation Gas. LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours

Conclusion/Summary

: Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
MTRAQ REAGENT Δ4 50U acetonitrile	535.7	1178.6	18322.5	N/A	N/A
	500	1100	17100	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100	-
				uL	

Conclusion/Summary

: Not available.

Sensitisation

Conclusion/Summary: Not available.

Mutagenicity

Conclusion/Summary: Not available.

Carcinogenicity

Conclusion/Summary: Not available.

Reproductive toxicity

Conclusion/Summary: Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2 ,5-Pyrrolidinedione, 1-[[(4-methyl-1-piperazinyl-1-15N-2,3-13C2)acetyl-2-13C]oxy]- ditrifluoroacetate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes: Routes

: Routes of entry anticipated: Oral, Dermal, Inhalation.

of exposure

Potential acute health effects

Eye contact : Zauses serious eye damage.

Inhalation : ⊮armful if inhaled.

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 10/16

MTRAQ REAGENT Δ4 50U

SECTION 11: Toxicological information

Skin contact : Causes severe burns. Harmful in contact with skin.

Ingestion : Farmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

pain watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

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

Short term exposure

Potential immediate

effects

: Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate

effects

: Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
a cetonitrile	Acute IC50 3685000 μg/l Fresh water Acute LC50 3600000 μg/l Fresh water Acute LC50 1000000 μg/l Fresh water Chronic NOEC 1000000 μg/l Fresh water Chronic NOEC 160000 μg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days

Conclusion/Summary: Not available.

12.2 Persistence and degradability

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 11/16

MTRAQ REAGENT Δ4 50U

SECTION 12: Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
cetonitrile	OECD 301C Ready Biodegradability - Modified MITI Test (I)	65 % - Readily - 28 days	-	Activated sludge

Conclusion/Summary: Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
a cetonitrile	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
z cetonitrile	-0.34	-	low

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste Packaging : The classification of the product may meet the criteria for a hazardous waste.

Methods of disposal

: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 12/16

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	☑ N2924	☑ N2924	☑ N2924	V N2924
14.2 UN proper shipping name	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (acetonitrile, trifluoroacetic acid)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (acetonitrile, trifluoroacetic acid)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (acetonitrile, trifluoroacetic acid)	Fammable liquid, corrosive, n.o.s. (acetonitrile, trifluoroacetic acid)
14.3 Transport hazard class(es)	8 (8)	8 (8)	3 (8)	3 (8)
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	No.	No.	No.

Additional information

ADR/RID : Mazard identification number 338

Limited quantity 1 L Special provisions 274 Tunnel code (D/E)

ADN : Special provisions 274

IMDG : Emergency schedules F-E, S-C

Special provisions 274

IMDG Code Segregation group SGG1 - Acids

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 1 L. Packaging instructions: 352.

Cargo Aircraft Only: 5 L. Packaging instructions: 363. Limited Quantities -

Passenger Aircraft: 0.5 L. Packaging instructions: Y340.

Special provisions A3, A803

14.6 Special precautions for user

: Fransport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 13/16

MTRAQ REAGENT Δ4 50U

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous

substances, mixtures and articles

Substances requiring

labelling

: Not applicable.

Other EU regulations

Europe inventory : Not determined.

Industrial emissions : Listed

(integrated pollution prevention and control) -

Air

Industrial emissions : Listed

(integrated pollution prevention and control) -

Water

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P₅c

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment

: This product contains substances for which Chemical Safety Assessments are still required.

15.3 Registration status: Mixture. Information concerning the substance : Contact local supplier or distributor.

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 14/16

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

vPvB = Very Persistent and Very Bioaccumulative

Key literature references and sources for data

: Regulation (EC) No. 1272/2008 [CLP]; European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), concluded in Geneva on 30 September 1957 plus amendments (Uniform text: Journal of Laws 27/2009 pos. 162 plus amendments); European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN); Occupational exposure limits;

International regulations

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification	
Mam. Liq. 2, H225	On basis of test data	
Acute Tox. 4, H302	Calculation method	
Acute Tox. 4, H312	Calculation method	
Acute Tox. 4, H332	Calculation method	
Skin Corr. 1, H314	On basis of test data	
Eye Dam. 1, H318	On basis of test data	

Full text of abbreviated H statements

√ 225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

Full text of classifications [CLP/GHS]

ACUTE TOXICITY - Category 4
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 1
SKIN CORROSION/IRRITATION - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -
Category 3

Training advice

: Ensure operatives are trained to minimise exposures. Training staff on good practice.

Date of issue/ Date of

revision

: 21/02/2022

Date of previous issue : 01/06/2012

Version : 3

Date of issue/Date of revision : 21/02/2022 Date of previous issue :01/06/2012 Version: 3 15/16

MTRAQ REAGENT Δ4 50U

SECTION 16: Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Date of issue/Date of revision : 21/02/2022 Date of previous issue : 01/06/2012 Version : 3 16/16