

Togni Reagent II

According to Regulation (EC) No. 1907/2006

Date of issue: 18/01/2017

Version: 1.0

SECTION 1: Identification

1.1. Product identifiers

Product Code	: Kumi3F11
Substance name	: 1-Trifluoromethyl-1,2-benziodoxol-3(1H)-one
Synonym	: Togni Reagent II, Acid Togni-CF ₃ Reagent
Trademark	: Fluora
CAS No	: 887144-97-0
Formula	: C ₈ H ₄ F ₃ O ₂
Reach No.	: Exempted from registration

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

Identified Uses	: Laboratory chemicals Manufacture of substances Scientific research and development
-----------------	--

1.3. Details of the supplier of the safety data sheet

Kumidas SA
Avenue Louise 279,1050,Brussels, Belgium
T: +32(0) 2 699 82 36 F: +32(0) 2 699 82 36 40
E: info@kumidas.com W: www.kumidas.com

1.4. Emergency telephone number

Emergency Phone# : +32(0)484 58 71 75

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

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

Skin irritation (Category 2), H315
Eye irritation (Category 2), H319
Specific target organ toxicity-single exposure (category 3), H335
Specific target organ toxicity-repeated exposure (Category 2), H373

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label elements

Labeling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word

: Warning

Hazard statements

: H315 – Causes skin irritation
H319 – Causes serious eye irritation
H335 – May cause respiratory irritation
H373 – May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

: P261 – Avoid breathing dust.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

: None

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

1-Trifluoromethyl-1,2-benziodoxol-3(1H)-one

Safety Data Sheet

According to Regulation (EC) No. 1907/2006

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mixture
Formula : $C_8H_4F_3IO_2$
Molecular weight : 316.02 g/mol
Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Product identifier	Concentration	Classification
Diatomaceous earth(Calcined)	(CAS No.) 68855-54-9 (EC No.) 272-489-0	50% ~ 70%	STOT RE 2;H373
1-Trifluoromethyl-1,2-benziodoxol-3(1H)-one	(CAS No.) 887144-97-0	30% ~ 50%	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3,H335

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general advice : In case of accident or if you feel unwell, seek medical advice immediately (show this SDS to the doctor in attendance). Move the affected personnel away from the contaminated area.
First-aid measures if inhaled : Move person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Consult a physician.
First-aid measures in case of skin contact : Wash off with soap and plenty of water. Consult a physician.
First-aid measures in case of eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician.
First-aid measures if swallowed : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water. Consult a physician.

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

Symptoms/injuries : The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen fluoride, Hydrogen iodide.

5.3. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

For disposal see section 13.

1-Trifluoromethyl-1,2-benziodoxol-3(1H)-one

Safety Data Sheet

According to Regulation (EC) No. 1907/2006

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2 - 8 °C.

Handle and store under inert gas. Air-, heat-, and moisture-sensitive.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component	CAS No#	Value Form of exposure	Control Parameters	Basis
Diatomaceous earth(Calcined)	68855-54-9	TWA(Inhalable)	6 mg/m ³	UK. EH40 WEL – Workplace Exposure Limits
	Remarks	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used		
Diatomaceous earth(Calcined)	68855-54-9	TWA(Respirable)	2.4 mg/m ³	UK. EH40 WEL – Workplace Exposure Limits
	Remarks	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used		

1-Trifluoromethyl-1,2-benziodoxol-3(1H)-one

Safety Data Sheet

According to Regulation (EC) No. 1907/2006

Component	CAS No#	Value Form of exposure	Control Parameters	Basis
Diatomaceous earth(Calcined)	68855-54-9	TWA(Inhalable dust)	6 mg/m ³	UK. EH40 WEL – Workplace Exposure Limits
	Remarks	<p>For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust</p> <p>The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit.</p> <p>Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'.</p> <p>Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3.</p> <p>Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>		
Diatomaceous earth(Calcined)	68855-54-9	TWA(Respirable dust)	2.4 mg/m ³	UK. EH40 WEL – Workplace Exposure Limits
	Remarks	<p>For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust</p> <p>The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit.</p> <p>Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'.</p> <p>Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3.</p> <p>Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>		

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Hand protection	: Handle with gloves. The selected protective gloves should satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Wash hands before breaks and at the end of workday.
Eye/face protection	: Safety glasses with side-shields conforming to EN166 use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166 (EU).
Skin and body protection	: Wear suitable protective clothing or use other protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards, such as NIOSH (US) or CEN (EU).
Control of environmental exposure	: Don't let product enter drains.

1-Trifluoromethyl-1,2-benziodoxol-3(1H)-one

Safety Data Sheet

According to Regulation (EC) No. 1907/2006

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	: Solid
Color	: White to Beige
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: 150 -158°C
Freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Molecular Weight	: 316.02 g/mol
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other safety information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and recommended storage conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

In the event of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: No data available
Skin corrosion/irritation	: No data available.
Serious eye damage/irritation	: No data available.
Respiratory or skin sensitization	: No data available
Germ cell mutagenicity	: No data available

1-Trifluoromethyl-1,2-benziodoxol-3(1H)-one

Safety Data Sheet

According to Regulation (EC) No. 1907/2006

H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	CMay cause damage to organs through prolonged or repeated exposure

16.2. Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It ,therefore,does not represent any guarantee of the properties of the product. Kumidas shall not be held liable or any damage resulting from handling or from contact with the above product.