

## Buffer QF

Version  
1.0

Revision Date:  
22.09.2021

Date of last issue: -  
Date of first issue: 22.09.2021

### Safety Data Sheet (SDS) cover letter for product:

#### Buffer QF

Catalog number: 19056  
Document ID: 800000000237  
Country / Language: SG / EN

This product contains one or more components with related SDS, listed below. You can find the SDS for each component on the following pages.

Components with SDS:

- Buffer QF

Kind regards,  
Your QIAGEN Team

Email [cpc@qiagen.com](mailto:cpc@qiagen.com) | Website [www.qiagen.com/safety](http://www.qiagen.com/safety)

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Product name : Buffer QF

**Manufacturer or supplier's details**Company : QIAGEN GmbH  
QIAGEN Str. 1  
D-40724 Hilden

Telephone : +49-(0)2103-29-0

Responsible Department : QIAGEN Singapore Pte Ltd.,  
8 Commonwealth Lane #02-02  
Singapore 149555  
Tel.: 1800 742 4362  
<http://support.qiagen.com>E-mail address : [cpc@qiagen.com](mailto:cpc@qiagen.com)

Responsible/issuing person

Emergency telephone : CHEMTREC: +1 703-527-3887  
number CHEMTREC: +(65)-31581349**Recommended use of the chemical and restrictions on use**

Recommended use : Laboratory chemicals

**2. HAZARDS IDENTIFICATION****GHS Classification**

Flammable liquids : Category 3

Serious eye damage/eye  
irritation : Category 2**GHS label elements**

Hazard pictograms



Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.  
H319 Causes serious eye irritation.

Precautionary statements :

**Prevention:**  
P210 Keep away from heat/ sparks/ open flames/ hot surfaces.  
No smoking.  
P280 Wear protective gloves/ protective clothing/ eye  
protection/ face protection.

**Storage:**  
P403 Store in a well-ventilated place.

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None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance / Mixture : Mixture  
Chemical nature : Alcohol**Components**

Chemical name	CAS-No.	Concentration (% w/w)
isopropanol	67-63-0	>= 10 -< 20

**4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.

If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.  
If symptoms persist, call a physician.

In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed : If accidentally swallowed obtain immediate medical attention.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : Causes serious eye irritation.  
No information available.

Notes to physician : No information available.

**5. FIREFIGHTING MEASURES**

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

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.  
Exposure to decomposition products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
None

Specific extinguishing methods : In the event of fire and/or explosion do not breathe fumes.  
Use a water spray to cool fully closed containers.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES**

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- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).  
Keep away from open flames, hot surfaces and sources of ignition.
- Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Open drum carefully as content may be under pressure.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
- Materials to avoid : Do not store together with oxidizing and self-igniting products.  
Do not store near acids.
- Further information on storage stability : No decomposition if stored and applied as directed.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
isopropanol	67-63-0	PEL (long term)	400 ppm 983 mg/m <sup>3</sup>	SG OEL
		PEL (short term)	500 ppm 1,230 mg/m <sup>3</sup>	SG OEL
		TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH

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## Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
isopropanol	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

## Personal protective equipment

## Hand protection

Material : Nitrile rubber  
 Break through time : 480 min  
 Glove thickness : 0.35 mm

Material : Protective gloves

Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection : Safety glasses  
 Wear face-shield and protective suit for abnormal processing problems.  
 Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
 Footwear protecting against chemicals  
 Workers should wear antistatic footwear.

Hygiene measures : Keep away from food and drink.  
 Wash hands before breaks and at the end of workday.  
 Ensure adequate ventilation, especially in confined areas.  
 Avoid contact with the skin and the eyes.  
 When using do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid  
 Colour : No data available  
 Odour : characteristic  
 Odour Threshold : No data available  
 pH : 8.6

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Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: 29 °C
Evaporation rate	: No data available
Burning rate	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 1.032 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

**10. STABILITY AND REACTIVITY**

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Stable under recommended storage conditions. Hazardous decomposition products formed under fire conditions. Vapours may form explosive mixture with air. Keep away from oxidizing agents, and acidic or alkaline

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products.

Conditions to avoid : Heat, flames and sparks.  
Incompatible materials : Oxidizing agents  
Hazardous decomposition products : Carbon oxides

No decomposition if stored and applied as directed.

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Not classified based on available information.

**Product:**

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

**Components:****isopropanol:**

Acute oral toxicity : LD50 Oral (Rat): 5,045 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 12,800 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Product:**

Remarks : May irritate skin.

**Components:****isopropanol:**

Species : Rabbit  
Result : Mild skin irritation

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

Remarks : May cause irreversible eye damage.

**Components:****isopropanol:**

Species : Rabbit  
Result : Eye irritation  
Exposure time : 24 h

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Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

**Product:**

Remarks : No data available

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**Components:****isopropanol:**

Assessment : May cause drowsiness or dizziness.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information****Product:**

Remarks : Solvents may degrease the skin.

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**12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**Toxicity to fish :  
Remarks: No data availableToxicity to algae/aquatic plants :  
Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

**Components:****isopropanol:**

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Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 9,640 mg/l  
Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 2,000 mg/l  
Exposure time: 72 h

**Persistence and degradability**

No data available

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: No data available

**Mobility in soil**

No data available

**Other adverse effects****Product:**

Additional ecological information : No data available

**13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Send to a licensed waste management company.  
Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Dispose of as unused product.  
Do not re-use empty containers.

**14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

UN number : UN 1987  
Proper shipping name : ALCOHOLS, N.O.S.  
(isopropanol)  
(isopropanol)

Class : 3  
Packing group : III  
Labels : 3

**IATA-DGR**

UN/ID No. : UN 1987  
Proper shipping name : Alcohols, n.o.s.  
(isopropanol)  
(isopropanol)

Class : 3  
Packing group : III  
Labels : Flammable Liquids  
Packing instruction (cargo aircraft) : 366

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(passenger aircraft) : 355**IMDG-Code**

UN number : UN 1987  
Proper shipping name : ALCOHOLS, N.O.S.  
(isopropanol)()  
Class : 3  
Packing group : III  
Labels : 3  
EmS Code : F-E, S-D  
Marine pollutant : no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations: This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.**

Environmental Protection and Management Act and : Not applicable  
Environmental Protection and Management  
(Hazardous Substances) Regulations

Fire Safety (Petroleum and Flammable Materials) : Isopropanol  
Regulations

**16. OTHER INFORMATION****Further information**

SDS Number : 600000001329

Date format : dd.mm.yyyy

**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)  
SG OEL : Singapore. Workplace Safety and Health Act - First Schedule  
Permissible Exposure Limits of Toxic Substances

ACGIH / TWA : 8-hour, time-weighted average

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ACGIH / STEL : Short-term exposure limit  
SG OEL / PEL (long term) : Permissible Exposure Level (PEL) Long Term  
SG OEL / PEL (short term) : Permissible Exposure Level (PEL) Short Term

AICS - Australian Inventory of Chemical Substances; AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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