

CHEMICALS, INC.

Revision: 18.07.2021

m number: 07-0598 AS Number: 3163-17-3 P Relevant identified uses o further relevant informat B Details of the supplier of anufacturer/Supplier: rem Chemicals, Inc. Mulliken Way WBURYPORT, MA 0195 SA To @ strem.com wither information obtain A Emergency telephone may AERGENCY: CHEMTRE wing normal opening time ECTION 2: Hazards of Classification of the sub assification according to GHS07 in Irrit. 2 H315 Causes s te Irrit. 2 H315 Causes s To TSE 3 H335 May cau Clabel elements belling according to Regular belling according to Regular Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa	the safety data sheet the safety data sheet the from: Technical Department tember: C: + 1 (800) 424-9300 S: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
AS Number: 3163-17-3 P Relevant identified uses o further relevant informat Details of the supplier of anufacturer/Supplier: rem Chemicals, Inc. Mulliken Way WBURYPORT, MA 0195 SA fo@strem.com wither information obtain P ERGENCY: CHEMTRE wing normal opening time ECTION 2: Hazards of Classification of the sub assification according to SO GHS07 in Irrit. 2 H315 Causes s o T SE 3 H335 May cau P Label elements belling according to Regu e substance is classified a uzard pictograms GHS07 SHS07 SHS07 SHS07	on available. <i>the safety data sheet</i> <i>the s</i>	s advised against
3163-17-3 Relevant identified uses further relevant informat Details of the supplier of anufacturer/Supplier: Tem Chemicals, Inc. Mulliken Way WBURYPORT, MA 0195 SA To @strem.com arther information obtain Armergency telephone mathematical arther information of the sub arther information of the sub assification according to Regu belling according to Regu e substance is classified a trand pictograms arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical arthematical	on available. <i>the safety data sheet</i> <i>the s</i>	s advised against
P. Relevant identified uses further relevant informat B Details of the supplier of anufacturer/Supplier: tem Chemicals, Inc. Mulliken Way EWBURYPORT, MA 0195 SA fo@strem.com arther information obtain B ECTION 2: Hazards of CCTION 2: Hazar	on available. <i>the safety data sheet</i> <i>the s</i>	s advised against
o further relevant informat B Details of the supplier o anufacturer/Supplier: Frem Chemicals, Inc. Mulliken Way EWBURYPORT, MA 0195 SA To @ strem.com arther information obtain arther information obtain bellic according to Regu belling according to Regu e substance is classified a arard pictograms belling according to Regu belling according to Regular belling accor	on available. <i>the safety data sheet</i> <i>the s</i>	s advised against
anufacturer/Supplier: Tem Chemicals, Inc. Mulliken Way GWBURYPORT, MA 0195 SA To@strem.com arther information obtain temergency telephone may AERGENCY: CHEMTRE aring normal opening time ECTION 2: Hazards a Classification of the sub assification according to Classification according to GHS07 in Irrit. 2 H315 Causes s To T SE 3 H335 May cau Classified elements belling according to Regular e substance is classified a transport of the sub substance is classified a transport of the sub fin Soft SHS07 gnal word Warning) able from: Technical Department amber: C: + 1 (800) 424-9300 s: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
rem Chemicals, Inc. Mulliken Way WBURYPORT, MA 0195 SA To@strem.com Wither information obtain Temergency telephone mid AERGENCY: CHEMTRE WITHER TO CHEMTRE WITHER TO COMPANY CONTINNATION OF THE SAME CONTINNATION OF THE SAME STATES OF THE SAME STATES OF THE SAME STATES OF THE SAME SA STATES OF THE SAME SA SA SA SA SA SA SA SA SA SA	able from: Technical Department amber: C: + 1 (800) 424-9300 s: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
Mulliken Way EWBURYPORT, MA 0195 SA To@strem.com Arther information obtain A Emergency telephone may A ERGENCY: CHEMTRE Wing normal opening time ECTION 2: Hazards of Classification of the sub assification according to Classification according to S GHS07 in Irrit. 2 H315 Causes s To T SE 3 H335 May cau Classified elements belling according to Regu e substance is classified a trand pictograms Cheven S S Correst S	able from: Technical Department amber: C: + 1 (800) 424-9300 s: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
WBURYPORT, MA 0195 SA To @ strem.com Ther information obtain Emergency telephone may AERGENCY: CHEMTRE Uring normal opening time ECTION 2: Hazards of Classification of the sub assification according to Construct a stressification GHS07 in Irrit. 2 H315 Causes s To T SE 3 H335 May cau Clabel elements belling according to Regular e substance is classified a trand pictograms Cheven Solution Classification according to Regular of the substance is classified a trand pictograms Construction Cheven Solution Construction Classified and the substance is classified a trand pictograms Construction Constructi	able from: Technical Department amber: C: + 1 (800) 424-9300 s: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
A io@strem.com wither information obtain Emergency telephone models AERGENCY: CHEMTRE wing normal opening time ECTION 2: Hazards ECTION 2: Hazards Classification of the sub assification according to GHS07 in Irrit. 2 H315 Causes s in Irrit. 2 H315 Causes s in Irrit. 2 H319 Causes s OT SE 3 H335 May cau Classified all Classified according to Regular e substance is classified a strand pictograms Cheven S Comparison	able from: Technical Department amber: C: + 1 (800) 424-9300 s: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
trther information obtain Emergency telephone man AERGENCY: CHEMTRE wing normal opening time ECTION 2: Hazards Classification of the sub assification according to GHS07 in Irrit. 2 H315 Causes s e Irrit. 2 H315 Causes s oT SE 3 H335 May cau Clabel elements belling according to Regular e substance is classified a transport of the sub- substance is classified a transport of the sub- sub- transport of the sub- transport of the sub- sub- transport of the sub- transport of the sub- sub- transport of the sub- sub- transport of the sub- transport of the sub- sub- transport of the sub- transport of the sub- transport of the sub- transport of the sub- transport of the sub- sub- transport of the sub- transport of the sub- transport of the sub- transport of the sub- sub- transport of the sub- transport of the sub- sub- transport of the sub- sub- transport of the sub- transport of the sub- sub- transport of the sub- transport of the sub- tran	amber: C: + 1 (800) 424-9300 S: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
Ecriton 2: Hazards Constraints of the sub- assification of the sub- assification according to Classification according to GHS07 in Irrit. 2 H315 Causes s or SE 3 H335 May cau Clabel elements belling according to Regu- e substance is classified a card pictograms	amber: C: + 1 (800) 424-9300 S: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
AERGENCY: CHEMTRE uring normal opening time ECTION 2: Hazards (Classification of the sub assification according to GHS07 in Irrit. 2 H315 Causes s oT SE 3 H335 May cau Clabel elements belling according to Regu e substance is classified a trand pictograms Cause Stance is classified a trand pictograms	C: + 1 (800) 424-9300 s: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
CTION 2: Hazards Classification of the sub assification according to GHS07 in Irrit. 2 H315 Causes s oT SE 3 H335 May cau Causes S OT SE 3 H335 May cau Causes s Databel elements belling according to Regu e substance is classified a card pictograms	s: +1 (978) 499-1600 dentification stance or mixture Regulation (EC) No 1272/2008	
CTION 2: Hazards Classification of the sub assification according to GHS07 in Irrit. 2 H315 Causes s e Irrit. 2 H319 Causes s OT SE 3 H335 May cau Clabel elements belling according to Regu e substance is classified a trand pictograms	dentification stance or mixture Regulation (EC) No 1272/2008	
Classification of the sub assification according to GHS07 in Irrit. 2 H315 Causes s oT SE 3 H335 May cau Label elements belling according to Regu e substance is classified a uzard pictograms	stance or mixture Regulation (EC) No 1272/2008	
Classification of the sub assification according to GHS07 in Irrit. 2 H315 Causes s oT SE 3 H335 May cau Label elements belling according to Regu e substance is classified a uzard pictograms	stance or mixture Regulation (EC) No 1272/2008	
assification according to GHS07 in Irrit. 2 H315 Causes s e Irrit. 2 H319 Causes s OT SE 3 H335 May cau 2 Label elements belling according to Regu e substance is classified a uzard pictograms GHS07 gnal word Warning	Regulation (EC) No 1272/2008	
GHS07 in Irrit. 2 H315 Causes s e Irrit. 2 H319 Causes s OT SE 3 H335 May cau 2 Label elements belling according to Regu e substance is classified a uzard pictograms GHS07 gnal word Warning		
in Irrit. 2 H315 Causes s e Irrit. 2 H319 Causes s OT SE 3 H335 May cau Cause S Correct S Correct S States S Correct S Cause S Correct S C	in irritation.	
in Irrit. 2 H315 Causes s e Irrit. 2 H319 Causes s OT SE 3 H335 May cau Cause S Correct S Correct S States S Correct S Cause S Correct S C	in irritation.	
e Irrit. 2 H319 Causes s OT SE 3 H335 May cau 2 Label elements belling according to Regu e substance is classified a uzard pictograms GHS07 gnal word Warning	in irritation.	
e Irrit. 2 H319 Causes s OT SE 3 H335 May cau 2 Label elements belling according to Regu e substance is classified a uzard pictograms GHS07 gnal word Warning	kin irritation.	
OT SE 3 H335 May cau 2 Label elements belling according to Regu e substance is classified a izard pictograms HS07 gnal word Warning		
2 Label elements belling according to Regu e substance is classified a uzard pictograms EHS07 gnal word Warning	erious eye irritation.	
belling according to Regi e substance is classified a izard pictograms GHS07 gnal word Warning	e respiratory irritation.	
belling according to Regi e substance is classified a izard pictograms GHS07 gnal word Warning		
azard pictograms	lation (EC) No 1272/2008	
HS07 BHS07	nd labelled according to the CLP reg	ulation.
gnal word Warning		
zard-determining compo		
	etrafluoroborate, min. 97% ItBuHBF	54
izard statements		
815 Causes skin irritation.	tation	
319 Causes serious eye irr 335 May cause respiratory		
ecautionary statements		
01 If medica	l advice is needed, have product com	tainer or label at hand.
02 Keep ou	of reach of children.	
03 Read lab	el before use.	(Contd. on
		(Conta: on

Printing date 18.07.2021

Revision: 18.07.2021

Trade name: 1,3-Bis(t-butyl)imidazolium tetrafluoroborate, min. 97% ItBuHBF

	(Contd. of page 1)
P231	Handle under inert gas.
P262	Do not get in eyes, on skin, or on clothing.
P305+P351+P33	8 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P422	Store contents under inert gas.
P501	Dispose of contents/container in accordance with local/regional/national/international
	regulations.
. 2 3 Other hazards	

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Chemical characterisation: Substances

· CAS No. Description

263163-17-3 1,3-Bis(t-butyl)imidazolium tetrafluoroborate, min. 97% ItBuHBF4

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:
- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- \cdot 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures Not required.

· 6.2 Environmental precautions: No special measures required.

· 6.3 Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

· 6.4 Reference to other sections See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.

(Contd. on page 3)

Printing date 18.07.2021

Revision: 18.07.2021

Trade name: 1,3-Bis(t-butyl)imidazolium tetrafluoroborate, min. 97% ItBuHBF₄

See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling Open and handle receptacle with care.
- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- Store in cool, dry conditions in well sealed receptacles.
- \cdot 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
- · Respiratory protection:
- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Protection of hands:



Protective gloves

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 chemical mixture.

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

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.

· 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 4)

GB



(Contd. of page 2)

Printing date 18.07.2021

ШK

CHEMICALS, INC.

Revision: 18.07.2021

		(Contd. of page
· Eye protection:		
Tightly sealed goggles		
•		
• 9.1 Information on basic physical and cl • General Information	hemical properties	
· Appearance:		
Form:	Solid	
Colour:	Whitish	
· Odour: · Odour threshold:	Odourless Not determined.	
· pH-value:	Not applicable.	
• Change in condition		
Melting point/freezing point:	Undetermined.	
Initial boiling point and boiling range.		
· Flash point:	Not applicable.	
· Flammability (solid, gas):	Not determined.	
· Ignition temperature:		
Decomposition temperature:	Not determined.	
• Auto-ignition temperature:	Not determined.	
• Explosive properties:	Product does not present an explosion hazard.	
· Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapour pressure:	Not applicable.	
· Density:	Not determined.	
· Relative density	Not determined.	
· Vapour density	Not applicable.	
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
water:	Insoluble.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Solvent content:		
Organic solvents:	0.0 %	
VOC (EC)	0.00 %	
Solids content:	100.0 %	
• 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

GB

Printing date 18.07.2021

Revision: 18.07.2021

(Contd. of page 4)

Trade name: 1,3-Bis(t-butyl)imidazolium tetrafluoroborate, min. 97% ItBuHBF₄

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

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · Skin corrosion/irritation
- Causes skin irritation.
- \cdot Serious eye damage/irritation
- Causes serious eye irritation.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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
- May cause respiratory irritation.
- · 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.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not known to be hazardous to water.
- · 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

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

- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

(Contd. on page 6)



Printing date 18.07.2021

CHEMICALS

Revision: 18.07.2021

Trade name: 1,3-Bis(t-butyl)imidazolium tetrafluoroborate, min. 97% ItBuHBF₄

(Contd. of page 5)

14.1 UN-Number		
ADR, ADN, IMDG, IATA	not regulated	
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	not regulated	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA Class	not regulated	
· 14.4 Packing group · ADR, IMDG, IATA	not regulated	
14.5 Environmental hazards: Marine pollutant:	No	
14.6 Special precautions for user	Not applicable.	
14.7 Transport in bulk according to Ann Marpol and the IBC Code	nex II of Not applicable.	
· UN ''Model Regulation'':	not regulated	

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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: Technical Department.

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 IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society)

- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Irrit. 2: Skin corrosion/irritation Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) Category 3

[·] Contact: Technical Director

[•] Abbreviations and acronyms: