Safety Data Sheet

fluorochem.

1. Identification of Substance / Mixture

Product Identifier

1.1.2 Product Name	**2-Methylpyridine borane complex**
1.1.2 Other Names	**(2-Methylpyridin-1-ium-1-yl)boranuide / Borane - 2-methylpyridine complex / Borane - 2-picoline complex / 2-Picoline borane**
1.1.1 Product Code	388295
1.1.3 CAS	3999-38-0
1.1.4 MDL	MFCD07784361
1.1.5 EINECS	609-767-1
1.1.6 REACH Registration Number	
1.2.1 Relevant Uses	Research and Development
1.2.2 Uses Advised Against	No uses advised against.

1.3 Supplier Details

1.3.1 Company	Fluorochem Limited
1.3.2 Address	Unit 14, Graphite Way, Hadfield. SK13 1QH. UK
1.3.3 Telephone	+44(0)1457 860111
1.3.4 Email	sds@fluorochem.co.uk
1.4.1 Emergency Telephone	+44(0)1457 860111 (08:00 - 17:30)

2. Hazards Identification

2.1.1 Classification

Water-react. 2
Acute Tox. 4
Skin Irrit. 2
Eye Irrit. 2A
STOT SE 3

2.2.1 Signal Word

Danger

2.2.2 Pictograms

GHS02

GHS07

2.2.3 Hazards

H261 In contact with water releases flammable gases.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

2.2.4 Precautions

P223 Do not allow contact with water.
P231+P232 Handle and store contents under inert gas. Protect from moisture.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear face protection.
P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P302+P335+P334 IF ON SKIN: Brush off loose particles from skin. Immerse in cool water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P321 Specific treatment.
P330 Rinse mouth.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use dry sand to extinguish.
P402+P404 Store in a dry place. Store in a closed container.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

2.2.5 Other Classification Hazards

3. Composition of Ingredients

SUBSTANCE

3.1.1 Name	3.1.2 CAS	Einecs	3.1.3	Hazards

Composition

2-Methylpyridine borane complex	3999-38-0	609-767-1	<= 100%	H261 Water-react. 2 H302 Acute Tox. 4 H315 Skin Irrit. 2 H319 Eye Irrit. 2A H335 STOT SE 3

4. First Aid Measures

4.1.1 Eye contact
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing and seek medical attention.

4.1.2 Ingestion
If swallowed rinse the mouth with plenty of water (only if the person is conscious) and contact a poison centre or physician if you feel unwell.

4.1.3 Inhalation
Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory problems seek immediate medical attention.

4.1.4 Skin Contact
After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing immediately. In case of skin reactions, consult a physician.

4.1.5 General Advice
No additional advice.

4.2.1 Most Important Symptoms and Effects
No known symptoms or effects.

4.3.1 Immediate First Aid Measures
No additional first aid measures required.

5. Fire Fighting Measures

5.1.1 Suitable Fire Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.1.2 Unsuitable Fire Extinguishing Media
Water.

5.2.1 Special Hazards
Thermal decomposition can lead to release of irritating gases and vapours.

5.3.1 Advice for Fire Fighters
As in any fire, wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

6.1.1 Personal Precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Keep personnel away from spill/leak.

6.2.1 Environmental Precautions
Do not let product enter drains or waterways. Avoid discharge into the environment.

6.3.1 Containment - Methods and Materials
Spill Response should only be carried out by trained or qualified personnel.

6.4.1 Referenced SDS Sections
For personal protection see section 8. For disposal see section 13.

7. Handling and Storage

Personal Precautions

7.1.1 Safe Handling
Handle and store under inert gas. Do not allow contact with water. Use only under a chemical fume hood. Keep away from heat/sparks/open flame/hot surfaces. Protect from moisture. Take measures to prevent the build-up of electrostatic charge. Ensure adequate exhaust ventilation, especially if dust, aerosol or fumes will be generated. Avoid contact with skin, eyes and clothing. For precautions see section 2.2.

7.1.2 Protection Against Explosion and Fire
Where possible, use anti static and spark proof equipment when handling.

7.1.3 General Occupational Hygiene
Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

Conditions for Safe Storage and Incompatabilities

7.2.1 Managing Storage Risks
Keep away from heat/sparks/open flame/hot surfaces. Store under inert gas. Protect from moisture. Take measures to prevent the build-up of electrostatic charge.

7.2.2 Storage Controls
No special requirements

7.2.3 Maintaining Integrity
Store under inert gas and protect from moisture. Keep container tightly closed in a cool area away from sunlight or heat sources.

7.2.4 Other Advice
In contact with water releases flammable gases.

7.3.1 Specific End Use(s)
No specific end uses are advised. The products supplied are for research purposes only.

8. Exposure Controls / Personal Protection

8.1.1 Control Parameters

8.2.1 Engineering Measures
Use only under a chemical fume hood ensuring adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Wear tightly fitting safety goggles which adhere to European standard EN 166. Ensure eye bath is to hand.

8.2.2 Face Protection	
8.2.3 Hand Proection	Handle with impermeable gloves. Inspect gloves before use. Gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
8.2.4 Skin Protection	Wear appropriate protective clothing ensuring all skin is covered. Wear safety shoes that meet at least S1 standards. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
8.2.5 Respiratory Protection	Product should be handled in a fume cupboard with adequate extraction. No respiratory equipment is needed under normal use conditions.
8.2.6 Hygiene Protection	Ensure hair or skin particles cannot enter the chemical container.
8.2.7 Environment Exposure Controls	Avoid discharge into the environment, see section 6.2.

9. Physical and Chemical Properties

9.1.1 State	Solid
9.1.2 Appearance	No data available.
9.1.3 Odour	No data available.
9.1.4 Odour Threshold	No data available.
9.1.5 pH	No data available.
9.1.6 Melting Point / Freezing Point	45 to 50°C
9.1.7 Initial Boiling Point	No data available.
9.1.8 Boiling Range	No data available.
9.1.9 Flash Point	100°C
9.1.10 Evaporation Rate	No data available.
9.1.11 Flammability	No data available.
9.1.12 Upper / Lower Flammability or Explosion Limits	No data available.
9.1.13 Vapour Pressure	No data available.
9.1.14 Vapour Density	No data available.
9.1.15 Relative Density	1.297g/cm3 at 25°C
9.1.16 Solubility	in Acetonitrile
9.1.17 Partion Coefficient	No data available.
9.1.18 Auto Ignition Temperature	No data available.
9.1.19 Decomposition Temperature	No data available.
9.1.20 Viscosity	No data available.
9.1.21 Explosive Properties	No data available.
9.1.22 Oxidising Properties	No data available.
9.2.1 Other information	No additional information available

10. Stability and Reactivity

10.1.1 Reactivity	No known reactivity, based on information available.
10.2.1 Stability	Moisture sensitive. Air sensitive.
10.3.1 Possibility of Hazardous Reactions	None under normal storage conditions.
10.4.1 Conditions To Avoid	Exposure to moisture.
10.5.1 Incompatible Materials	Water.
10.6.1 Hazardous Decomposition Products	In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In combustion emits toxic fumes of nitrogen oxides. In combustion emits toxic fumes of boron oxides.

11. Toxicology Information

11.1.1 Acute Toxicity	No Toxicology data available for this product.
11.1.2 Skin Corrosion / Irritation	No Toxicology data available for this product.
11.1.3 Serious Eye Damage / Irritation	No Toxicology data available for this product.
11.1.4 Respiratory or Skin Sensitisation	No Toxicology data available for this product.
11.1.5 Germ Cell Mutagenicity	No Toxicology data available for this product.
	No Toxicology data available for this product.

11.1.6 Carcinogencity	
11.1.7 Reproductive Toxicity	No Toxicology data available for this product.
11.1.8 STOT-single Exposure	No Toxicology data available for this product.
1.11.9 STOT-repeated Exposure	No Toxicology data available for this product.
11.1.10 Aspiration Hazard	No Toxicology data available for this product.
11.2.1 Additional Toxicology Information	No Toxicology data available for this product.

12. Ecological Information

12.1.1 Toxicity	No Ecological data available for this product.
12.2.1 Persistence and Degradability	No Ecological data available for this product.
12.3.1 Bio-Accumulative Potential	No Ecological data available for this product.
12.4.1 Mobility in Soil	No Ecological data available for this product.
12.5.1 Results of PBT and vPvB assessment	No Ecological data available for this product.
12.7.1 Endocrine Disrupting Properties	No Ecological data available for this product.
12.6.1 Other Adverse Effects	No Ecological data available for this product.

13. Disposal Considerations

13.1.1 Disposal Operations	Ensure product is disposed of by licensed waste carriers.
13.1.2 Disposal of Packaging	Ensure INNER PACKAGING is disposed of by licensed waste carriers. Some OUTER PACKAGING MAY be recyclable if not contaminated.

14. Transport Information

IATA UN Number	2813
ADR UN Number	2813
IMDG UN Number	2813
14.1.2 IATA Proper Shipping Name	WATER-REACTIVE SOLID, N.O.S.(2-Methylpyridine borane complex)
14.2.2 ADR Proper Shipping Name	WATER-REACTIVE SOLID, N.O.S.(2-Methylpyridine borane complex)
14.3.2 IMDG Proper Shipping Name	WATER-REACTIVE SOLID, N.O.S.(2-Methylpyridine borane complex)
IATA Packing Group	II
ADR Packing Group	II
IMDG Packing Group	II
14.1.4 IATA Hazard Class	4.3
14.2.4 ADR Hazard Class	4.3
14.3.4 IMDG Hazard Class	4.3
14.1.5 IATA Sub Class	
14.2.5 ADR Sub Class	
14.3.5 IMDG Sub Class	-

15. Regulatory Information

15.1.1 Regulatory Information	As far as Fluorochem is aware, there are no further regulations controlling this product.
15.2.1 Chemical Safety Assessment	No Chemical Safety Assessment available for this product.

16. Other Information

16.1.2 Information Not Covered in Other Sections	ADR: Accord Europeen sur le transport des merchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road) RID:Reglement International concernant le transport des merchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association ICAO:International Civil Aviation Organization ICAO-TI: Technical Instructions by the ICAO GHS: Globally Harmonized System of Classification and Labelling of Chemicals CAS:Chemical Abstracts Service
Revision	1.275

Date Modified	22/06/2023
16.1.1 Disclaimer	The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user. This SDS adheres to Regulation (EC) No 1907/2006.