



MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification

1.1 Product identifiers

Product Name : 2-Bromo-4,6-difluoroaniline

Cat No.: A11022

CAS No. : 444-14-4

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

Recommended uses : Laboratory chemicals

Uses advised against: Food, drug, pesticide or biocidal product use.

1.3 Details of the supplier of the safety data sheet

Company : Krishna Solvechem Limited.
B/503, Sahayog, S. V. Road,
Kandivali (West), Mumbai – 400067. India.

Telephone : +91-22-6123 0222

Email : exports@kscl.co.in

1.4 Emergency telephone number

Emergency Phone : +91-8657457330

SECTION 2: Hazards identification

2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	(Category 4)
Chronic aquatic toxicity	(Category 2)

2.2 Label elements

Pictogram :



Signal word

Warning

Hazard statement (s)

H302 – Harmful if swallowed

H411 – Toxic to aquatic life with long lasting effects

Combustible liquid

Precautionary Statements

P264 – Wash face, hands and any exposed skin thoroughly after Handling

P273 – Avoid release to the environment

P301 + P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell



Other Hazards : No information available

SECTION 3: Composition / information on ingredients

3.1

Component	CAS-No	Weight %
2-Bromo-4,6-difluoroaniline	444-14-4	>95

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhalation : Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion : Do NOT induce vomiting. Get medical attention

Self-Protection of the first aider : Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

4.2 Most important symptoms and effects : No information available

4.3 Notes to Physician : Treat symptomatically

SECTION 5: Firefighting effects

5.1 Extinguishing media

Suitable extinguishing media : Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Unsuitable Extinguishing Media: : No information available

5.2 Flash Point : 80 °C / 176 °F
Method : No information available



Ignition Temperature:	No information available
Explosion Limits:	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available
Specific Hazards Arising from the Chemical :	Flammable. Combustible material. Containers may explode when heated.
Hazardous Combustion Products :	Carbon monoxide (CO). Carbon dioxide (CO ₂). Hydrogen halides. Nitrogen oxides (NO _x). Gaseous hydrogen fluoride (HF)
5.4 Protective Equipment and Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Take precautionary measures against static discharges

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Remove all sources of ignition.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin and eyes. Do not breathe dust. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.



7.2 Conditions for safe storage

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Keep containers tightly closed in a dry, cool and well-ventilated place. **Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK)(Germany) Class 11**

SECTION 8: Exposure controls/personal protection

8.1 Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures

Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

8.2 Exposure controls

Personal protective equipment -

Eye and Hand protection

Goggles (European standard –EN 166)

Protective gloves (natural rubber, nitrile rubber, neoprene, PVC)

Skin protection and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly.

Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced **Recommended Filter type:** Particulates filter conforming to EN 143

small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN141

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	White solid
b) Odour	Odorless
c) Odour Threshold	No information available
d) pH	No information available
e) Melting point / freezing point	39 - 41 °C / 102.2 - 105.8 °F
f) Initial boiling point and	No information available



boiling range	
g) Flash point	80 °C / 176 °F
h) Evaporation rate	No information available
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	No data available No data available
k) Vapour pressure	No information available
l) Vapour density	Not applicable
m) Specific Gravity	No data available
n) Solubility	No information available
o) Partition coefficient: n octanol/water	No data available
p) Auto-ignition temperature	No information available
q) Decomposition temperature	No data available
r) Viscosity	No information available
s) Molecular formula	C6 H4 Br F2 N
t) Molecular Weight	208

SECTION 10: Stability and Reactivity

10.1 Reactive Hazard :	None known, based on information available
10.2 Chemical stability :	Stable under normal conditions.
10.3 Possibility of hazardous reactions :	None under normal processing.
10.4 Conditions to avoid :	Keep away from open flames, hot surfaces and sources of ignition. Incompatible products.
10.5 Incompatible materials:	Strong oxidizing agents
10.6 Hazardous decomposition products :	Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrogen halides, Nitrogen oxides (NO _x), Gaseous hydrogen fluoride
10.7 Hazardous Polymerization	Hazardous polymerization does not occur



SECTION 11: Toxicological information

11.1

Information on toxicological effects

Acute toxicity:

Product Information:

Oral	Category 4
Dermal	No information available
Inhalation	No data available

Component Information

Toxicologically Synergistic Products No information available

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

Irritation :	No information available
Sensitization:	No information available
Carcinogenicity :	No data available. There are no known carcinogenic chemicals in this product

Mutagenic Effects: No information available.

Reproductive Effects: No information available.

Developmental Effects : No information available.

Teratogenicity: No information available.

STOT - single exposure : None known

STOT - repeated exposure: None known

Aspiration hazard : No information available.

Symptoms / effects, both acute and delayed: No information available

Endocrine Disruptor Information : Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

Other Adverse Effects : The toxicological properties have not been fully investigated.



SECTION 12: Ecological information

12.1

Ecotoxicity:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

12.2 Persistence and degradability: No information available

**Bioaccumulation/
Accumulation** No information available

12.3 Mobility: No information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

SECTION 14: Transport information

14.1 UN number :

ADR/RID: UN3077

IMDG: UN3077

IATA : UN3077

14.2 UN proper shipping name

ADR/RID : Environmentally hazardous substances, solid, n. o. s.

IMDG : Environmentally hazardous substances, solid, n. o. s.

IATA : Environmentally hazardous substances, solid, n. o. s.

14.3 Transport hazard class(es) ADR/RID: 9 IMDG: 9 IATA: 9

14.4 Packaging group: ADR/RID: III IMDG: III IATA: III



SECTION 15: Regulatory information

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

International Inventories:

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	EINECS	DSL	NDSL	ELINCS	PICCS	ENCS	AICS	IECSC	KECL
2-Bromo-4,6-difluoroaniline	-	-	-	429-430-0	-	-	-	-	-

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

National Regulations

WGK Classification

Water endangering class = 2 (self classification)

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

15.2 Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: Other information

16.1 Prepared By:	Regulatory affairs Krishna Solvechem Limited
Email:	exports@kscl.co.in
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Revision Date:	24-Dec-2022
Print Date:	24Dec-2022
Revision Summary:	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 C F R 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

16.2 Disclaimer:

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 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.