AFROX
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SAFETY DATA SHEET (SDS)

BRAZING FLUXES

Review Date: 21/11/2023 v01 **Emergency: 0860 02 02 02** **Document Number: AFX-SDS-0105**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Synonym	Easyflo Flux Powder M15 Brazing Flux
Chemical Formula	Mixtures of bifluoride, tetraborate and fluoroborate of potassium with boric acid and boric anhydride. Mixture of tetraborate and fluorosilicate of potassium with borax and boric acid.
Trade Name	Easyflo Flux Powder White Powder 550–800°C Working Range M15 Brazing Flux White Powder 800°C Melting Point
Colour Coding	Not coded
Product Code	W001852 W001553
Company Identification	African Oxygen Limited Grayston Office Park Building 7 128 Peter Road Sandown, Sandton, 2196 Tel. No: (011) 490-0400 Fax No: (011) 490-0530 Email: customer.service@afrox.linde.com www.afrox.com
Emergency Numbers	**0860 02 02 02 (Afrox)**

2. HAZARD IDENTIFICATION

Classification	Classification under South African Hazardous Chemical Substances Regulations subsequently amended. (HCS) Classification under the Globally Harmonized System of classification and labelling of chemicals (GHS)
Emergency Overview	Colour: White Odour: None Taste: None Physical State: Solid
Main Hazards	Irritation of the nasal passages, eyes, throat and skin
Adverse Health Effects	Irritation of the nasal passages, eyes and Throat harmful by ingestion Contact with skin causes irritation Severe long-term exposure to fume may result in fluorosis Acute cases there is a danger of pulmonary oedema
Chemical Hazards	Corrosive solid
Biological Hazards	None
Vapour Inhalation	Airway & Nasal irritant Harmful by ingestion
GHS Classification	Skin corrosion/irritation- Hazard Category 2 Eye damage/eye irritation- Hazard Category 2B Acute toxicity, oral - Hazard Category 4 Acute toxicity, inhalation - Hazard Category 4
GHS Pictogram	
GHS Signal Words	Warning
GHS Hazard Statements	- H315: Causes skin irritation - H320: Causes eye irritation - H302 + H332: Harmful if swallowed or if inhaled
GHS Precautionary Statements	- **Prevention:** P280: Wear chemical resistant protective gloves/protective clothing P264: Wash exposed skin thoroughly after handling P270: Do not eat, drink or smoke when using this product P261: Avoid breathing dust/fume/gas/mist/ vapours/spray P271: Use only outdoors or in a well-ventilated area - **Response:** P312: Call a POISON CENTRE/doctor if you feel unwell P321: Specific treatment (see section 4 on this label) P302 + P352: IF ON SKIN: Wash with plenty of water P362 + P364: Take off contaminated clothing and wash it before reuse P332 + P313 If skin irritation occurs: Get medical advice/attention P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337 + P313: If eye irritation persists: Get medical advice/attention P301 + P312: IF SWALLOWED: Call a POISON CENTRE/ doctor if you feel unwell P330: Rinse mouth P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing - **Storage:** None - **Disposal**: P501: Dispose of contents/container in accordance with local / regional / national / international regulations
Other Hazards that do not result in classification	None

3. COMPOSITION OF INGREDIENTS

Chemical name Chemical family	Mixtures of bifluoride, tetraborate and fluoroborate of potassium with boric acid and boric anhydride

	Mixture of tetraborate and fluorosilicate of potassium with borax and boric acid
CAS No	Not known
UN No	Not known
ERG No	NA
Hazard class	NA
Hazchem Warning	Not Classified

4. FIRST AID MEASURES

Eye contact	Irrigate with water or isotonic saline for up to 20 minutes. Seek medical attention if there is any hint of eye damage
Skin Contact	Remove any contaminated clothing and wash skin with soap and water. Seek medical attention if sores develop.
Ingestion	Rinse mouth with water and give patient water or milk to drink. Do not induce vomiting. Summon medical aid
Inhalation	Remove from exposure and allow to rest in fresh air. In acute cases apply artificial respiration and, if necessary summon medical aid

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use any extinguishing medium suitable for surrounding fire
Unsuitable extinguishing media:	None
Specific Hazards	Non-flammable. This brazing flux has no particularly hazardous properties. When handling the concentrate, rubber gloves, an apron and eye protection should be worn
Special fire fighting procedures:	None required. This product is non-flammable. Remove containers from the vicinity of the fire. Keep containers cool that cannot be removed.
Special protective equipment for firefighters:	Use full protection with breathing apparatus if involved in a fire as harmful fumes may be evolved Eye protection and protective gloves should be worn when handling the product for lengthy periods of time

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Eye protection and protective gloves should be worn when handling the product for lengthy periods of time.
Environmental Precautions	No available data
Methods and material for containment and cleaning up:	**Powder:** Carefully sweep up and collect in suitable container for re-use or disposal **Past:** Either collects in suitable container for re-use or disposal. For large spills, cover with sand or other inert absorbent and collect in suitable container for disposal. Avoid contact with skin or eyes and do not inhale dust **Liquid:** For large spills, cover with sand or other inert absorbent and collect in suitable container for disposal. Avoid contact with skin or eyes and do not inhale dust

7. HANDLING AND STORAGE

Safe Handling	Use only under conditions of good local ventilation or efficient extraction systems and do not inhale fumes evolved during use. Avoid contact with skin and eyes. Do not eat, drink, smoke or apply cosmetics whilst using this material. Keep away from food, drink and animal feeding stuffs and out of reach of children. Observe good industrial hygiene practices
Conditions for safe storage, including any incompatibilities	Ensure good stock rotation practices Store in a cool, dry place. Keep container closed when not in use

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Hazards (HCS)	Boron oxide OEL eight-hour TWA 10mg/m3 Potassium Tetraborate – unknown Potassium Bifluoride – unknown Boric Acid - unknown
Engineering Control Measures	Avoid exposure to fume with good ventilation or local extraction. If a risk of inhalation exists personal respiratory protection should be worn. The use of barrier creams may present skin irritation. If necessary the use of safety glasses should be considered. Wash hands and clean fingernails before meals
Personal Protection	Eye protection and protective gloves should be worn when handling the product for lengthy periods of time
Eyes	Safety glasses
Hands	Chemical protective gloves
Body protection:	None
Feet	None

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Brazing fluxes
Chemical Symbol	None
Physical state	Odourless powder or paste or Liquid
Form:	Solid
Colour:	White powder
Odour:	None
Odour Threshold:	None
pH:	7.0-8.0
Melting Point:	550 °C – 1200 °C

Boiling Point:	No data
Sublimation Point:	No data
Critical Temp. (°C):	No data
Flash Point:	No data
Evaporation Rate:	No data
Flammability (solid):	Not flammable
Flammability limit - upper (%):	Not flammable
Flammability limit - lower(%):	Not flammable
Vapour pressure:	No data
Vapour density (air=1)	No data
Relative density:	No data
Solubility in Water:	Soluble in water 1080g/l
Partition coefficient (n-octanol/water):	No data
Autoignition Temperature:	No data
Decomposition Temperature:	No data
Viscosity	
Kinematic viscosity:	No data
Dynamic viscosity:	No data
Explosive properties:	Not applicable
Oxidising Properties:	Not applicable
Molecular weight	No data

10. STABILITY AND REACTIVITY

Reactivity	No data
Chemical stability	No data
Possibility of hazardous reactions	No data
Conditions to avoid	No data
Incompatible Materials	Containers of powder left open once the seals are broken may absorb moisture and become lumpy. Pastes are water based, and whilst stable, will lose water by evaporation if left open. Do not' freeze. No other adverse reactions are known.
Hazardous Decomposition of Products	No data

11. TOXOLOGICAL INFORMATION

Acute Toxicity	Toxicological data for these preparations: LD50 (oral) > 200mg/kg.
Skin & eye contact	Classified as moderately irritating, according to Draize skin test
Chronic Toxicity	No data
Carcinogenicity	No data
Mutagenicity	No data
Reproductive Hazards	No data

12. ECOLOGICAL INFORMATION

Toxicity	Toxicological data for these preparations: LD50 (oral) > 200mg/kg.
Persistence and degradability	No data
Bio-accumulative Potential Product	No data
Mobility in soil	No data
Results of PBT and vPvB assessment	No data
Other adverse effects	No data
Effect on ozone layer	No data
Effect on the global warming (CO2=1)	No data

13. DISPOSAL CONSIDERATIONS

Disposal Methods	Should be returned to the supplier for disposal
Disposal of Packaging	Disposal according to local and national regulations

14. TRANSPORT INFORMATION

Road Transportation

UN No.	Not known
Shipping Name	BRAZING FLUXES
ERG No.	Not known
Class	Not known
Subsidiary Risk	Not known
Hazchem Warning	Not classified
IMDG	Not known
Shipping Name	BRAZING FLUXES
ERG No.	Not known
Class	Not known
Subsidiary Risk	Not known
Label	Not Classified
ICAO/IATA Code	Not known
Class	Not known
Packing Group:	Not known
Packaging instructions	Not known

15. REGULATORY INFORMATION

EEC Hazard class: Oxidiser.
National legislation OHSAct and Regulations 85 of 1993.

SANS 11014:2010 Edition 1	Safety data sheet for chemical products - Content and order of sections
SANS 10228:2012 Edition 6	The identification and classification of dangerous goods for transport by road and rail modes
SANS 10234:2019 Edition 2	Globally Harmonized System of classification and labelling of chemicals (GHS)
SUPPLEMENT TO SANS 10234 Edition 1	List of classification and labelling of chemicals in accordance with the Globally Harmonized System (GHS)

16. OTHER INFORMATION

- Ensure all national/local regulations are observed.
- Ensure users and relevant persons understand the asphyxiation hazard
- Regularly check supplier's information sources for updated versions of SDS's

Revision Date	21/08/2023 v01

Bibliography

Compressed Gas Association, Arlington, Virginia
Handbook of Compressed Gases - 3rd Edition
Matheson Gas Data Book - 6th Edition
SANS 11014 - Safety data sheet for chemical products: Content and order of sections
SANS 10234 - List of classification and labelling of chemicals in accordance with the Globally Harmonized System (GHS)
SANS 10265 – Classification and Labelling of Dangerous Substances

EXCLUSION OF LIABILITY