Section 1. Identification

Product identifier

Product Identity UltraSil 56 Flux

Other means of identification 831241

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

See Technical Data Sheet.

Details of the supplier of the safety data sheet

Company Name

Kimball Midwest
4800 Roberts Road
Columbus Ohio
43228
Phone: 800-233-1294

Emergency

24 hour Emergency Telephone No. Customer Service: Chemtrec 800-424-9300

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Acute toxicity(oral), category 4;H302	Harmful if swallowed.
Skin corrosion/irritation category 1B;H314	Causes severe skin burns and eye damage.
Serious eye damage / eye irritation, category 1;H318	Causes serious eye damage.
Reproductive toxicity, category 1B;H360FD	May damage fertility. May damage the unborn child.

Label elements

Danger

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H360FD* May damage fertility. May damage the unborn child.

[Prevention]
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust, fume, mist, vapors or spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves, protective clothing, eye protection, face protection.
[Response]
P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.
P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313 IF exposed or concerned: Get medical advice or attention.
P310 Immediately call a POISON CENTER, doctor or physician.
P312 Call a POISON CENTER, doctor or physician if you feel unwell.
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P363 Wash contaminated clothing before reuse.
[Storage]
P405 Store locked up.
[Disposal]
P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards

This product contains no PBT/vPvB chemicals.
This product contains no endocrine disrupting chemicals.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's

Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Boron potassium oxide (b4k2o7) **CAS Number: 1332-77-0** **Synonyms: Boron potassium oxide (b4k2o7)**	**10 - 30**	**Reproductive toxicity, category 2;H361**	**No data available**
Boric Acid **CAS Number: 10043-35-3** **Synonyms: Boric Acid**	**10 - 30**	**Reproductive toxicity, category 1B;H360FD**	**No data available**
Potassium bifluoride **CAS Number: 7789-29-9** **Synonyms: Potassium fluoride (k(hf2))**	**10 - 30**	**Acute toxicity(oral), category 3;H301** **Skin corrosion/irritation category 1B;H314: C ≥ 1 %** **Skin corrosion/irritation category 2;H315: 0,1 % ≤ C < 1 %** **Serious eye damage / eye irritation, category 2;H319: 0,1 % ≤ C < 1 %**	**No data available**

The actual concentration or concentration range is withheld as a trade secret.
*PBT/vPvB - PBT-substance or vPvB-substance.
The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview No specific symptom data available. Treat symptomatically. See section 2 for further details.

Eyes Causes serious eye damage.

Skin Causes severe skin burns and eye damage.

Ingestion Harmful if swallowed.

Section 5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.
Do not breathe dust, fume, mist, vapors or spray.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. ----

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental precautions

Do not allow spills to enter drains or waterways.

Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8. Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Incompatible materials: No available information

See section 2 for further details. - [Storage]

Specific end use(s)

No available information

Section 8. Exposure controls / personal protection

Control parameters

Exposure

CAS No.	Ingredient	Source	Value
1332-77-0	Boron potassium oxide (b4k2o7)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
7789-29-9	Potassium bifluoride	OSHA	TWA 2.5 mg/m^3 (as F)
		ACGIH	2.5 mg/m^3 (as F)
		NIOSH	TWA 2.5 mg/m^3 [*Note: The REL also applies to other inorganic, solid fluorides (as F).]
10043-35-3	Boric Acid	OSHA	TWA 2.5 mg/m^3 (as F)
		ACGIH	2 mg/m^3 (I) Inhalable 6 mg/m^3 (I) Inhalable
		NIOSH	TWA 2.5 mg/m^3 [*Note: The REL also applies to other inorganic, solid fluorides (as F).]

Exposure controls

Respiratory If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes Protective safety glasses recommended

Skin Avoid skin contact. Protective gloves recommended.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State	Paste-like
Color	Pink
Odor	Odorless
Melting point / freezing point	422ºC
Initial boiling point and boiling range	100ºC
Flammability (solid, gas)	No available information
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** No available information **Upper Explosive Limit:** No available information
Flash Point	°F °C, Test method: (Open/Close cup)
Auto-ignition temperature	No available information
Decomposition temperature	No available information
pH	8.8 to 9.1
Viscosity (cSt)	No available information
Solubility in Water	Soluble
Partition coefficient n-octanol/water (Log Kow)	No available information
Vapor pressure (Pa)	No available information
Relative Density	No available information
Vapor Density	No available information
Evaporation rate (Ether = 1)	No available information
Oxidising properties	No available information
Explosive properties	No available information

Other information

No other relevant information.

Section 10. Stability and reactivity

Reactivity
Hazardous Polymerization will not occur.
Chemical stability
Stable under normal circumstances.
Possibility of hazardous reactions
No available information
Conditions to avoid
Avoid high temperatures and contact with incompatible material
Incompatible materials
No available information
Hazardous decomposition products
No hazardous decomposition data available.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Boron potassium oxide (b4k2o7) - (1332-77-0)	No data available.	No data available.	No data available.	No data available.	No data available.
Boric Acid - (10043-35-3)	3,450.00, Rat - Category: 5	> >2,000.00, Rabbit - Category: NA	No data available.	> 2.03, Rat - Category: NA	No data available.
Potassium bifluoride - (7789-29-9)	No data available.	No data available.	No data available.	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
1332-77-0	Boron potassium oxide (b4k2o7)	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
7789-29-9	Potassium bifluoride	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
10043-35-3	Boric Acid	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	A4

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	1B	May damage fertility. May damage the unborn child.
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry:

Symptoms and effects, both acute and delayed::

No specific symptom data available.

Treat symptomatically.

Eyes Causes serious eye damage.

Skin Causes severe skin burns and eye damage.

Ingestion Harmful if swallowed.

Section 12. Ecological information

Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Boron potassium oxide (b4k2o7) - (1332-77-0)	No data available.	No data available.	No data available.
Boric Acid - (10043-35-3)	79.70, Pimephales promelas	91.00, Ceriodaphnia dubia	66.00, Phaeodactylum tricornutum
Potassium bifluoride - (7789-29-9)	51.00, Fish (Piscis)	97.00, Daphnia magna	81.00, Skeletonema costatum

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

No available information

Mobility in soil

No available information

Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

Other adverse effects

No available information

Section 13. Disposal considerations

Waste treatment methods

Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	Not Regulated	Not Regulated	Not Regulated
UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
Transport hazard class(es)	**DOT Hazard Class:** Not Applicable **Sub Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable **Sub Class:** Not Applicable
Packing group	Not Applicable	Not Applicable	Not Applicable

Environmental hazards

Marine Pollutant: No;

Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0010043-35-3	Boric Acid	Yes		ACTIVE
0001332-77-0	Boron potassium oxide (b4k2o7)	Yes		ACTIVE
0001309-37-1	Iron oxide	Yes		ACTIVE
0007789-29-9	Potassium bifluoride	Yes		ACTIVE
0007664-93-9	Sulfuric acid	Yes		ACTIVE

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Revision Date 08/22/2024

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that the supplier believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of the supplier's control, the supplier makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

The full text of the phrases appearing in section 3 is:
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H360 May damage fertility or the unborn child.
H361 Suspected of damaging fertility or the unborn child.

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