

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name FLUX

Other means of identification

Product Code(s) 088-717-06
Synonyms No information available

Recommended use of the chemical and restrictions on use

Recommended Use For Further Manufacturing Use Only.
Uses advised against Not for Human or Animal Drug Use

Details of the supplier of the safety data sheet

Company Address	Manufacturer Address
VWR International, LLC	VWR International Co.
Radnor Corporate Center	2360 Argentia Road
100 Matsonford Road	Mississauga
Radnor, PA 19087-8660	Ontario, L5N 5Z7

Company Phone Number Anachemia (USA): 1-518-297-4444 Anachemia (CAN): 1-514-489-5711
E-mail Address NAMSDS@vwr.com.

Emergency Telephone Number
Emergency Telephone Number CHEMTREC: 800-424-9300
 CANUTEC: 613-996-6666

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Serious Eye Damage/Eye Irritation	Category 2
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1B

Label elements

Emergency Overview

Danger

Hazard statements

H319 - Causes serious eye irritation
 H350 - May cause cancer
 H360 - May damage fertility or the unborn child



Appearance Powder	Physical State Solid	Odor Odorless
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Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not regulated

Other Information

- May be harmful if swallowed
 - May be harmful in contact with skin
- Unknown Acute Toxicity 2.5 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
Borax Anhydrous	1330-43-4	215-540-4	50-60	Not applicable
Sodium carbonate	497-19-8	207-838-8	30-40	Not applicable
Quartz	14808-60-7	238-878-4	5-10	Not applicable

4. FIRST AID MEASURES

First Aid Measures

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

Inhalation Move to fresh air. If not breathing, give artificial respiration.

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

Specific Hazards Arising from the Chemical

No information available.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal protection Ensure adequate ventilation, especially in confined areas.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products Acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Borax Anhydrous 1330-43-4	6 mg/m ³ STEL (inhalable fraction, listed under Borate compounds, inorganic) TWA: 2 mg/m ³	-	TWA: 1 mg/m ³
Sodium carbonate 497-19-8	-	-	-
Quartz 14808-60-7	TWA: 0.025 mg/m ³	See Table Z-3 Mineral Dusts	IDLH: 50 mg/m ³ TWA: 0.05 mg/m ³

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Avoid contact with eyes. Safety glasses with side-shields.
Skin and Body Protection	Wear protective gloves/clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Solid	Odor	Odorless
Appearance	Powder	Odor Threshold	No information available
Color	Grey		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash Point (High in °C)	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature	No information available	
Decomposition Temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

Other Information

Softening Point	No information available
Molecular Weight	No information available
VOC Content	No information available
Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Acids.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	Harmful by inhalation.
Eye Contact	Irritating to eyes.
Skin Contact	There is no data available for this product.
Ingestion	Harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Borax Anhydrous 1330-43-4	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Sodium carbonate 497-19-8	= 4090 mg/kg (Rat)	-	= 2300 mg/m ³ (Rat) 2 h
Quartz 14808-60-7	= 500 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms No information available.

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

Sensitization No information available.
Mutagenic Effects No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Borax Anhydrous 1330-43-4	-	-	-	-
Sodium carbonate 497-19-8	-	-	-	-
Quartz 14808-60-7	A2	Group 1	Known	X

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 2.5 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

10% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Borax Anhydrous 1330-43-4	158: 96 h Desmodesmus subspicatus mg/L EC50 2.6 - 21.8: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	340: 96 h Limanda limanda mg/L LC50	1085 - 1402: 48 h Daphnia magna mg/L LC50

Sodium carbonate 497-19-8	242: 120 h Nitzschia mg/L EC50	300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static	265: 48 h Daphnia magna mg/L EC50
Quartz 14808-60-7	-	-	-

Persistence and Degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical Name	Partition coefficient
Borax Anhydrous 1330-43-4	-
Sodium carbonate 497-19-8	-
Quartz 14808-60-7	-

Other Adverse Effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste Disposal Method**

Dispose of material in accordance with all federal, state, and local regulations.

Contaminated Packaging

Do not re-use empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Borax Anhydrous 1330-43-4	-	-	-	-
Sodium carbonate 497-19-8	-	-	-	-
Quartz 14808-60-7	-	-	-	-

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Borax Anhydrous 1330-43-4	-	-	-	-
Sodium carbonate 497-19-8	-	-	-	-
Quartz 14808-60-7	-	-	-	-

Chemical Name	California Hazardous Waste Status
Borax Anhydrous 1330-43-4	-
Sodium carbonate 497-19-8	Corrosive
Quartz 14808-60-7	-

14. TRANSPORT INFORMATION**DOT**

Not regulated

IATA

Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	SARA 313 - Threshold Values %
Borax Anhydrous 1330-43-4 (50-60)	-
Sodium carbonate 497-19-8 (30-40)	-
Quartz 14808-60-7 (5-10)	-

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Borax Anhydrous 1330-43-4	-	-	-	-
Sodium carbonate 497-19-8	-	-	-	-
Quartz 14808-60-7	-	-	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Borax Anhydrous 1330-43-4	-	-	-

Sodium carbonate 497-19-8	-	-	-
Quartz 14808-60-7	-	-	-

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Borax Anhydrous - 1330-43-4	-
Sodium carbonate - 497-19-8	-
Quartz - 14808-60-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Borax Anhydrous 1330-43-4	-	-	X
Sodium carbonate 497-19-8	-	-	-
Quartz 14808-60-7	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not regulated

16. OTHER INFORMATION

Issuing Date 24-May-2016
 Revision Date 24-May-2016
 Revision Note
 No information available

Disclaimer

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

End of Safety Data Sheet