

**ALKALUME 143**Version 1.0  
SDS\_US\_GHSSDS Number: 2200464-0400-5-  
000Revision Date: 19.05.2015

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**SECTION 1. IDENTIFICATION**

Product name : ALKALUME 143

Product code : 2200464-0400-5-000

**Manufacturer or supplier's details**

Company name of supplier : Atotech Deutschland GmbH

Address : Erasmusstrasse 20  
Berlin 10553  
Germany

Telephone : +4930349850

Company name of supplier : Atotech USA

Address : 1750 OVERVIEW DRIVE  
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Prepared by  
Product Safety Department (PSD): product-safety@atotech.comInquiries  
Questions about content of Safety Data Sheets: product-safety@atotech.com

Emergency telephone : CHEMTREC +18004249300

Transport Medical : Rocky Mountain Poison Control Center: 303-623-5716

**Recommended use of the chemical and restrictions on use**Recommended use : Plating agents and metal surface treating agents  
Surface treatment

Restrictions on use : For industrial use only.

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**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Serious eye damage : Category 1

Reproductive toxicity : Category 1B

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**GHS Label element**

Hazard pictograms



Signal Word

: Danger

Hazard Statements

: H318 Causes serious eye damage.  
H360 May damage fertility or the unborn child.

Precautionary Statements

: **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear eye protection/ face protection.  
P281 Use personal protective equipment as required.  
**Response:**  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/ physician.  
**Storage:**  
P405 Store locked up.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

Chemical nature : Solid

**Hazardous ingredients**

Chemical Name	CAS-No.	Concentration (%)
Disodium tetraborate decahydrate	1303-96-4	>= 60 - < 80
Sodium carbonate	497-19-8	>= 10 - < 25
Tetrasodium pyrophosphate	7722-88-5	>= 10 - < 25
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	>= 2.5 - < 5

This product may contain component (s) that are not listed under disclosure. All components not listed, do not contain hazardous materials above de minimus disclosure limits as defined by OSHA, NIOSH, ACGIH or Canadian WHMIS regulations and or guidelines. Please refer to other sections of the MSDS for information on safety, health and environmental guidelines and precautions.

**SECTION 4. FIRST AID MEASURES**

General advice : Call a physician or poison control center immediately.

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	Show this material safety data sheet to the doctor in attendance.
If inhaled	: Move to fresh air.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use.
In case of eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 30 minutes. Consult a physician.
If swallowed	: If swallowed, call a poison control center or doctor immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.
Most important symptoms and effects, both acute and delayed	: Causes serious eye damage. May damage fertility or the unborn child.
Protection of first-aiders	: First Aid responders should pay attention to self-protection and use the recommended protective clothing
Notes to physician	: For specialist advice physicians should contact the Poison Control Center.

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**SECTION 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.
Hazardous combustion products	: Boron oxides Carbon oxides oxides of phosphorus
Specific extinguishing methods	: Use a water spray to cool fully closed containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Evacuate personnel to safe areas.  
Keep people away from and upwind of spill/leak.
- Environmental precautions : Should not be released into the environment.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).  
Shovel or sweep up.  
Keep in suitable, closed containers for disposal.  
Clean contaminated floors and objects thoroughly while observing environmental regulations.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Handle in accordance with good industrial hygiene and safety practice.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Avoid breathing dust.
- Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.  
Keep locked up or in an area accessible only to qualified or authorized persons.
- Recommended storage temperature : -5 - 40 °C

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Disodium tetraborate decahydrate	1303-96-4	TWA	5 mg/m <sup>3</sup>	NIOSH REL
		TWA	10 mg/m <sup>3</sup>	OSHA P0
		TWA (Inhalable fraction)	2 mg/m <sup>3</sup> (Borate)	ACGIH
		STEL (Inhalable fraction)	6 mg/m <sup>3</sup> (Borate)	ACGIH
Tetrasodium pyrophosphate	7722-88-5	TWA	5 mg/m <sup>3</sup>	NIOSH REL
		TWA	5 mg/m <sup>3</sup>	OSHA P0

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Ethyl alcohol	64-17-5	STEL	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0

**Personal protective equipment**

Respiratory protection : In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection  
Remarks

: Wear protective gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Follow the instructions for use issued by the producer.

Eye protection

: Tightly fitting safety goggles  
Face-shield  
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection

: Impervious clothing  
Boots

Protective measures /  
Engineering measures

: Ensure adequate ventilation, especially in confined areas.

Hygiene measures

: Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.  
When using do not eat, drink or smoke.  
Avoid breathing dust.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : solid

Color : white, beige

Odor : No information available.

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : not determined

Initial boiling point and boiling : not determined

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range	
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not classified as a flammability hazard
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: not determined
Relative vapor density	: Not applicable
Density	: No data available
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: Not applicable

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: None under normal processing.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Avoid dust formation. To avoid thermal decomposition, do not overheat. Exposure to moisture.
Incompatible materials	: No data available
Hazardous decomposition products	: No hazardous decomposition products are known.

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**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**Inhalation  
Eye contact  
Skin Absorption**Acute toxicity**

Not classified based on available information.

**Product:**Acute oral toxicity : Acute toxicity estimate : 3,164 mg/kg  
Method: Calculation method**Ingredients:****Tetrasodium pyrophosphate:**

Acute oral toxicity : Acute toxicity estimate : 500 mg/kg

**Alcohols, C11-14-iso-, C13-rich, ethoxylated:**

Acute oral toxicity : Acute toxicity estimate : 500 mg/kg

Remark: The acute toxicity estimate (ATE) of the ingredients are derived using the LD50/LC50 values where available.

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Product:**

Remarks: May cause irreversible eye damage.

**Respiratory or skin sensitization**Skin sensitization: Not classified based on available information.  
Respiratory sensitization: Not classified based on available information.**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

<b>IARC</b>	Group 1: Carcinogenic to humans	
	Ethyl alcohol	64-17-5
<b>ACGIH</b>	Confirmed animal carcinogen with unknown relevance to humans	
	Ethyl alcohol	64-17-5

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**OSHA specified**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

May damage fertility or the unborn child.

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information****Product:**

Remarks: No data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Ingredients:****Sodium carbonate:**

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 265 mg/l  
aquatic invertebrates Exposure time: 48 h

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

No data available



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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

- Waste from residues : Dispose of in accordance with local regulations.  
Dispose of wastes in an approved waste disposal facility.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
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**SECTION 14. TRANSPORT INFORMATION****International Regulation****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation****DOT / 49 CFR**Not regulated as a dangerous good

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**SECTION 15. REGULATORY INFORMATION****TSCA 5a** : Not relevant**TSCA\_12b** : Not relevant**DEA** : Not applicable**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute Health Hazard  
Chronic Health Hazard**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Massachusetts Right To Know**

Disodium tetraborate decahydrate	1303-96-4	60 - 80 %
Tetrasodium pyrophosphate	7722-88-5	10 - 25 %

**Pennsylvania Right To Know**

Disodium tetraborate decahydrate	1303-96-4	60 - 80 %
Tetrasodium pyrophosphate	7722-88-5	10 - 25 %

**New Jersey Right To Know**

Disodium tetraborate decahydrate	1303-96-4	60 - 80 %
Tetrasodium pyrophosphate	7722-88-5	10 - 25 %
Ethyl alcohol	64-17-5	0.1 - 1 %

**California Prop 65**

WARNING! This product contains a chemical known in the State of California to cause cancer.

Ethyl alcohol	64-17-5
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WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Ethyl alcohol	64-17-5
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Remarks: Components which are only displayed in Section 15 are being reported for local regulatory purposes. These components are not displayed in Section 3 due to one or more of the following conditions being met: being present in the product at concentration(s) below threshold limit values for reporting, not considered hazardous materials, health hazards or because they do not contribute to the overall GHS Classification of the final product as required by OSHA HazCom 2012 final rule ( 29 CFR 1910.1200).

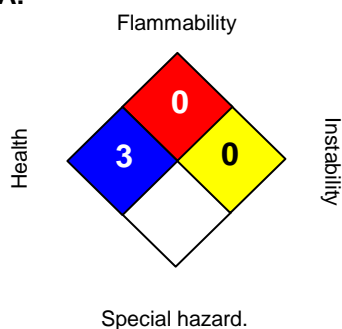
**Substances currently restricted by WEEE/RoHS (European Directive 2002/96/EC , 2002/95/EC) or ELV (European Directive 2000/53/EC):**

PBDE	PBB	CrVI	Hg	Pb	Cd
-	-	-	-	-	-

Please note: Current legislation restricting the use of certain substances applies to „homogeneous material“ in finished articles being supplied to the market. Substances deposited during surface finishing may have a composition (weight percent) higher than the weight percent of the substance in the operating solution from which the deposit is made. Atotech encourages its customers to implement systems to ensure their finished products comply with the regulations in force.

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**SECTION 16. OTHER INFORMATION****Further information****NFPA:****HMIS III:**

<b>HEALTH</b>	<b>3*</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

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The information provided in this Material 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 a 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.