6235 Buster

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Revision Date: 07/22/2015 Date of issue: 07/22/2015 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Name: 6235 Buster

1.2. Intended Use of the Product

Cleaning Solution

1.3. Name, Address, and Telephone of the Responsible Party

Company

Ardex Laboratories, Inc.
2050 Byberry Rd
Philadelphia, PA 19116
T 215-698-0500
ardexlabs.com

1.4. Emergency Telephone Number

Emergency Number : 800-424-9300
CHEMTREC – TOLL FREE 24 HOUR EMERGENCY TELEPHONE NUMBER

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

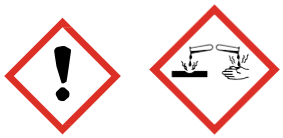
Skin Irrit.	1A	H314
Eye Damage/irritation	1	H314
Accute Toxcity Oral	4	H302
Accute Toxicity Inhal.	4	H332
Accute Toxicity Derm.	4	H312

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :



Signal Word (GHS-US) : DANGER

Hazard Statements (GHS-US) : H314 – Causes severe skin burns and eye damage
H302 + H312 + H332 – Harmful if swallowed, in contact with skin or if inhaled

Precautionary Statements (GHS-US) : P261: Avoid breathing dust/mist/vapors./spray
P271: Use only outdoors or in a well ventilated area
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P270: Do not eat, drink or smoke when using this product.
P264: Wash exposed parts of body thoroughly after handling.
P302 + P352: IF ON SKIN: Wash with plenty of water
P280: Wear protective gloves / protective clothing / eye protection/ face protection.
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.
P362 + P364 Take off contaminated clothing and wash it before reuse.

2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US) No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)
Sodium Hydroxide	(CAS No) 1310-73-2	<10
Ethyl Glycol Monobutyl Ether	(CAS No) 111-76-2	<1.0

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible). In all cases, immediately call a POISON CENTER or doctor/ physician.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Call a physician immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician immediately.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician immediately.

Ingestion: DO NOT INDUCE VOMITING! Give large quantities of water or milk, if available. Never give anything by mouth to an unconscious person. Call a physician immediately.

Note to Physician: Perform endoscopy in all cases of suspected Sodium Hydroxide ingestion. In cases of severe esophageal corrosion, the use of therapeutic doses of steroids should be considered. General supportive measures with continual monitoring of gas exchange, acid-base balance, electrolytes, and fluid intake are also required.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Causes skin irritation.

Inhalation: May cause respiratory irritation.

Skin Contact: Causes skin irritation.

Eye Contact: May cause eye irritation.

Ingestion: May be harmful if ingested in large quantities.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use an extinguishing agent suitable for the surrounding fire. CAUTION: Adding water to caustic solution generates large amounts of heat.

Unsuitable Extinguishing Media: No specific treatment

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Hot or molten material can react violently with water. May cause fire and explosions when in contact with incompatible materials.

Reactivity: . Can react with certain metals, such as aluminum, to generate flammable hydrogen gas..

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO_2). Can react with certain metals, such as aluminum, to generate flammable hydrogen gas.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray). Ventilate area.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

May be harmful to the environment if released in large quantities. Avoid dispersal of spilled concentrate material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air) in reportable quantities. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Residues from spills can be diluted with water, neutralized with dilute acid such as acetic, hydrochloric or sulfuric. Absorb neutralized caustic residue on clay, vermiculite or other inert substance and package in a suitable container for disposal.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: None classified.

7.3. Specific End Use(s)

Cleaning and degreasing

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Sodium Hydroxide (1310-73-2)		
British Columbia	OEL TWA (mg/m^3)	2 mg/m^3
OSHA Permissible Exposure Limit (PEL)	PEL (mg/m^3)	2 mg/m3

ACGIH Threshold Limit Value (TLV) - 2 mg/m3 Ceiling	TLV (mg/m^3)	2 mg/m^3
Ethylene glycol monobutyl ether (111-76-2)		
ACGIH	TWA	20ppm
OSHA Z-1	TWA	240 mg/m3 50 ppm
ACGIH	TWA	BEI
OSHA Z-1	TWA	Absorbed via skin

8.2. Exposure Controls

Appropriate Engineering Controls: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

If the exposure limit is exceeded and engineering controls are not feasible, a half face piece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full face piece particulate respirator (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, Glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in Oxygen-deficient atmospheres.

Personal Protective Equipment: Protective goggles. Gloves. Protective clothing.

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Use chemical safety goggles and / or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse ffects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	:	Liquid
Appearance	:	Clear , free-flowing , tan color with a characteristic solvent odor
Odor	:	Hydrocarbon-Fruity odor
Odor Threshold	:	Not available
pH	:	Not available
Evaporation Rate	:	Not available
Melting Point	:	Not available
Freezing Point	:	-9 DEG. C. (20 DEG. F.)
Boiling Point	:	105-112 C (221-231 F)
Flash Point	:	None

Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	Not Available
Upper Flammable Limit	:	Not Available
Vapor Pressure	:	Not available
Relative Vapor Density at 20 °C	:	8.5 (@20 DEG. C.)
Relative Density	:	Not available
Specific Gravity	:	1-1.2 (@20 DEG. C)
Solubility	:	Miscible
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Not available
Viscosity, Dynamic	:	Notavailable
Explosion Data – Sensitivity to Mechanical Impact	:	Not available
Explosion Data – Sensitivity to Static Discharge	:	Not available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Incompatible materials.

10.5. Incompatible Materials: Sodium Hydroxide in contact with acids and organic halogen compounds, especially Trichloroethylene, may causes violent reactions. Contact with Nitromethane and other similar nitro compounds causes formation of shock-sensitive salts. Contact with metals such as Aluminum, Magnesium, Tin, and Zinc cause formation of flammable Hydrogen gas. Sodium Hydroxide, even in fairly dilute solution, reacts readily with various sugars to produce Carbon Monoxide. Precautions should be taken including monitoring the tank atmosphere for Carbon Monoxide to ensure safety of personnel before vessel entry.

10.6. Hazardous Decomposition Products: Sodium Oxide. Decomposition by reaction with certain metals releases flammable and explosive Hydrogen gas. Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Ketones. Organic acids.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects – Product

Emergency Overview: POISON! DANGER! CORROSIVE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. CAUSES BURNS TO ANY AREA OF CONTACT. REACTS WITH WATER, ACIDS AND OTHER MATERIALS.

Potential Health Effects:

Inhalation: Severe irritant. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur.

Ingestion: Corrosive! Swallowing may cause severe burns of mouth, throat, and stomach. Severe scarring of tissue and death may result. Symptoms may include bleeding, vomiting, diarrhea, fall in blood pressure. Damage may appears days after exposure

Skin Contact: Corrosive! Contact with skin can cause irritation or severe burns and scarring with greater exposures.

Eye Contact: Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness.

Chronic Exposure: Prolonged contact with dilute solutions or dust has a destructive effect upon tissue.
Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye disease may be more susceptible to the effects of this substance.
Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) No data available.
Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data available.
Numerical Measures of Toxicity:

Ingredient	Known	Anticipated	IARC Category
Sodium Hydroxide (1310-73-2)	No	No	None
Water (7732-18-5)	No	No	None

Acute Toxicity:
Sodium Hydroxide: irritation data: skin, rabbit: 500 mg / 24 h severe; eye rabbit: 50 ug / 24 h severe
Investigated as a mutagen.
Glycol Ether EB – ORAL: LD50, Guinea pig, 1,400 mg/kg LD50, Rat, 1,300 mg/kg
Glycol Ether EB – Dermal: LD50, Guinea pig, > 2,000 mg/kg
Glycol Ether EB – Inhalation: LC0, Guinea pig, 1 Hour, vapour, > 3.1 mg/l No deaths occurred at this concentration.

Carcinogenicity Component
Ethylene glycol monobutyl ether ACGIH A3: Confirmed animal carcinogen with unknown relevance to humans.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Sodium Hydroxide (1310-73-2):

Ecotoxicity: Harmful to aquatic life. The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

EC50 Water flea (Ceriodaphnia dubia): 34.59 mg/l 48 h
LC50 Western mosquitofish (Gambusia affinis): 125 mg/l 96 h

Persistence and Degradability: Expected to readily biodegrade.
Bioaccumulative Potential: No further relevant information available.
Mobility in Soil: During movement through soil some ion exchange will occur. Also, some of the Hydroxide may remain in the aqueous phase and will move downward through soil in the direction of groundwater flow.
Other adverse effects:
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

Glycol Ether EB (111-76-2)

Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 1,474 mg/l, OECD Test Guideline 203
Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, 1,550 mg/l, OECD Test Guideline 202
Acute toxicity to algae/aquatic plants
EbC50, Pseudokirchneriella subcapitata (green algae), static test, 72 Hour, Biomass, 911 mg/l, OECD Test Guideline 201
Toxicity to bacteria
IC50, Bacteria, Growth inhibition, > 1,000 mg/l
Chronic aquatic toxicity Chronic toxicity to fish

NOEC, Danio rerio (zebra fish), semi-static test, 21 d, > 100 mg/l

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, Other, 100 mg/l

Persistence and degradability

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

10-day Window: Pass **Biodegradation:** 90.4 % **Exposure time:** 28 d

Method: OECD Test Guideline 301B or Equivalent

Theoretical Oxygen Demand: 2.30 mg/mg

Chemical Oxygen Demand: 2.21 mg/g Dichromate

Incubation Time	BOD
5 d	**5.2 %**
10 d	**57 %**
20 d	**72.2 %**

Biological oxygen demand (BOD)

Bioaccumulative potential

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). **Partition coefficient: n-octanol/water(log Pow):** 0.81 Measured **Bioconcentration factor (BCF):** 3.2

Mobility in soil

Potential for mobility in soil is high (Koc between 50 and 150).

Partition coefficient(Koc): 67 Estimated.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Waste Disposal Recommendations: Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14: TRANSPORT INFORMATION

UN Number: UN1824

UN Proper Shipping Name: SODIUM HYDROXIDE SOLUTION

Packing Group: II

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)

Transport Hazard Class(es): 8

Maritime Transport IMDG/GGVSea

Transport Hazard Class(es): 8

Marine Pollutant: No

Air Transport ICAO-TI and IATA-DGR

Transport Hazard Class(es): 8

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Special Precautions for User: Warning: Corrosive Substances

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

6235 Buster

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Reactive hazard
Clean Water Act (CWA) 311	Ethylene glycol monobutyl ether

Water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

International and US regulations by ingredient

Ingredient	TSCA	EC	Japan	Australia
Sodium Hydroxide (1310-73-2)	**Yes**	**Yes**	**Yes**	**Yes**
Water (7732-18-5)	**Yes**	**Yes**	**Yes**	**Yes**

Chemical Inventory Status – Part 1

Ingredient	Korea	Canada		Phil.
		DSL	NDSL	
Sodium Hydroxide (1310-73-2)	**Yes**	**Yes**	**No**	**Yes**
Water (7732-18-5)	**Yes**	**Yes**	**No**	**Yes**

Chemical Inventory Status – Part 2

	SARA 302		SARA 313	
Ingredient	RQ	TPQ	List Chemical	Catg.
Sodium Hydroxide (1310-73-2)	**No**	**No**	**No**	**No**
Water (7732-18-5)	**No**	**No**	**No**	**No**
Ethylene glycol monobutyl ether (111-76-2)	**No**	**No**	**Yes**	**Yes**

Federal, State & International Regulations - Part 1

	RCRA		TSCA
Ingredient	CERCLA	261.33	8(d)
Sodium Hydroxide (1310-73-2)	**1000**	**No**	**No**
Water (7732-18-5)	**No**	**No**	**No**

Federal, State & International Regulations - Part 2

Chemical Weapons Convention: **No**		TSCA 12(b): **No**		CDTA: **No**
SARA 311/312:	Acute: **Yes**	Chronic: **No**	Fire: **No**	Pressure**: No**
Reactivity: **No**		**Mixture / Liquid**		

Australian Hazchem Code: 2R

Poison Schedule: S6

Pensylvania Right To know: Ethylene glycol monobutyl ether

ON

Revision Date : 07/22/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012