

ELAN-Plus™ BS-6440 Inhibitor

Version 3

Revision Date 10/29/2012

Print Date 04/18/2013

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ELAN-Plus™ BS-6440 Inhibitor
Product Use Description : Polymerization Inhibitor

Company : ELANTAS PDG, INC.
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St. Louis MO 63147

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SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid
Hazard Summary : HARMFUL IN CONTACT WITH SKIN.
HARMFUL BY INHALATION.
IRRITATING TO EYES.
FLAMMABLE.

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR1910.1200)

Potential Health Effects

Eyes : Causes eye burns.

Skin : Can cause irritation which may include the following symptoms: reddening, swelling, rash, scaling or blistering.
May be harmful if absorbed through skin.
May produce central nervous system depression with headache and/or nausea.
Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.

Ingestion : May be harmful or fatal if swallowed.
May cause gastrointestinal irritation and central nervous system effects such as dizziness, drowsiness, and/or loss of coordination.

Inhalation : Breathing high concentrations of vapors or mist may cause upper respiratory tract irritation and may be associated with cardiac irregularities.

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May affect the brain or nervous system, causing dizziness, headache, or nausea.

Repeated exposure to high concentrations may cause liver and/or kidney damage.

Chronic Exposure : Repeated excessive exposure to this product may cause central nervous system, liver, or kidney effects and respiratory or eye irritation.
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.
Repeated exposure may cause damage to red blood cells.

Aggravated Medical Condition : Respiratory disorders
Skin disorders
Kidney disorders
Liver disorders

Primary Routes of Entry : Inhalation
Skin contact
Skin absorption

Carcinogenicity:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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

ACGIH	2-Butoxyethanol	111-76-2
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Environmental Effects

Environmental Effects : No information available.

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

Quinone Solution

Hazardous components

The specific chemical identity/weight percent of proprietary ingredient(s) is a trade secret

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Component	CAS-No.	Weight percent
2-Butoxyethanol	111-76-2	60.00 - 100.00
p-benzoquinone	106-51-4	1.00 - 5.00
Ethylene glycol	107-21-1	0.10 - 1.00

SECTION 4. FIRST AID MEASURES**First aid procedures**

- Inhalation : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Consult a physician.
- Skin contact : In case of contact, immediately flush skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash and thoroughly clean contaminated clothing and shoes before reuse. Consult a physician.
- Eye contact : In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Consult a physician.
- Ingestion : If swallowed, consult a physician. This material (or its components) may present an aspiration hazard. Never give anything by mouth to an unconscious person.

Notes to physician**SECTION 5. FIREFIGHTING MEASURES****Flammable properties**

- Flash point : 61 °C (142 °F)
Method: No information available.
- Suitable extinguishing media : Carbon dioxide (CO2)
Foam
Dry powder
Water mist
Water spray
- Unsuitable extinguishing media : Do NOT use water jet.
- Special protective equipment for firefighters : Wear a positive-pressure supplied-air respirator with full facepiece.

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- Use personal protective equipment.
- Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.
Cool containers / tanks with water spray.
Flash back possible over considerable distance.
The pressure in sealed containers can increase under the influence of heat.
Cool closed containers exposed to fire with water spray.
- Hazardous decomposition products due to incomplete combustion : Carbon oxides
nitrogen oxides (NOx)
- Further information : Remove ignition sources
Immediately evacuate personnel to safe areas.
Use a water spray to cool fully closed containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Remove all sources of ignition.
Ensure adequate ventilation.
Avoid breathing vapors.
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Clean contaminated floors and objects thoroughly while observing environmental regulations.
- Methods for containment : Stop leak. Dike and contain spill.
- Methods for cleaning up : Absorb with inert absorbent material and dispose of in accordance with applicable regulations.
- Additional advice : Shut off source of spill if it can be done safely.
Use non-sparking tools.

SECTION 7. HANDLING AND STORAGE**Handling**

- Handling : Keep closure tight and container upright to prevent leakage.
Store container out of sunlight and away from heat, sparks and flame.
Store only in well-ventilated areas.
Containers should be grounded when being emptied.
Never use pressure to empty.
Container is not a pressure vessel.
Do not puncture, drag, or slide container.
ATTENTION: Emptied containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks and flames. Do not cut, puncture or weld on or near this

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container. Follow label warnings until container is thoroughly cleaned or destroyed.

Avoid contact with or breathing of vapors during curing process.

Do not get in eyes.

Prevent repeated or prolonged breathing of vapor or spray mist.

Storage

Advice on common storage : Do not store above 49°C (120 °F).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines****Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
2-Butoxyethanol	111-76-2	TWA	20 ppm	2007-01-01	ACGIH
		TWA	50 ppm 240 mg/m3	1997-08-04	OSHA P1
		TWA	5 ppm 24 mg/m3	2005-09-01	NIOSH REL
p-benzoquinone	106-51-4	TWA	0.1 ppm	2007-01-01	ACGIH
		TWA	0.1 ppm 0.4 mg/m3	1997-08-04	OSHA P1
		TWA	0.1 ppm 0.4 mg/m3	1989-01-19	OSHA P0
		TWA	0.1 ppm 0.4 mg/m3	2005-09-01	NIOSH REL
Ethylene glycol	107-21-1	C	100 mg/m3	2007-01-01	ACGIH

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Engineering measures

Engineering measures : Use with adequate ventilation.
All application areas should be ventilated in accordance with applicable OSHA regulations. (29 CFR 1910.94)

Personal protective equipment

Eye protection : Use safety eyewear designed to protect against splash of liquids.
Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection : Impervious gloves

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Wear an appropriate, properly-fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates that vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use.

Hygiene measures : Do not get in eyes.
Do not get on skin.
Avoid prolonged or repeated breathing of vapor.
Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid
Odor Threshold : no data available
Flash point : 61 °C (142 °F)
Method: No information available.

Ignition temperature : no data available
Lower explosion limit : no data available
Upper explosion limit : no data available
pH : no data available
Freezing point : no data available
Boiling point : no data available
Vapour pressure : no data available
Evaporation rate : no data available
Density : 0.9049 g/cm3
at 25 °C (77 °F) (1.013 hPa)

Bulk density : 904.9291 kg/m3

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Partition coefficient: n-
octanol/water : no data available
Relative vapor density : no data available

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Keep away from open flames, hot surfaces and sources of ignition.

Materials to avoid : Strong oxidizing agents

Hazardous decomposition products : Carbon dioxide, carbon monoxide and toxic vapors. nitrogen oxides (NOx)

Chemical stability : Stable

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
(Component) : Component: 111-76-2 2-Butoxyethanol
LD50 rat
Dose: 530 mg/kg
LD50 rabbit
Dose: 520 mg/kg

Component: 106-51-4 p-benzoquinone
LD50 mouse
Dose: 25 mg/kg

Acute dermal toxicity
(Component) : Component: 111-76-2 2-Butoxyethanol
LD50 rabbit
Dose: 220 mg/kg
LD50 rabbit
Dose: 100 mg/kg

Component: 106-51-4 p-benzoquinone
no data available

Component: 107-21-1 Ethylene glycol
LD50 rabbit
Dose: 9.53 mg/kg

Acute inhalation toxicity
(Component) : Component: 111-76-2 2-Butoxyethanol
LC50 rat
Dose: 468 ppm
Exposure time: 4 h

Component: 106-51-4 p-benzoquinone
no data available

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Component: 107-21-1 Ethylene glycol
LC50 mouse
Dose: > 200 mg/l
Exposure time: 2.00 h

Skin irritation (Component) : Component: 111-76-2 2-Butoxyethanol
rabbit
Result: Moderate skin irritation

Component: 106-51-4 p-benzoquinone
no data available

Component: 107-21-1 Ethylene glycol
rabbit
Result: Mild skin irritation

Eye irritation(Component) : Component: 111-76-2 2-Butoxyethanol
rabbit
Result: Eye irritation

Component: 106-51-4 p-benzoquinone
no data available

Component: 107-21-1 Ethylene glycol
rabbit
Result: Moderate eye irritation
Method: Draize Test

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological
information (Product) : no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Further information : Dispose of in accordance with applicable Federal, State, and local regulations. Under the Resource Conservation and Recovery Act (RCRA) regulations, it is the responsibility of the product user to determine, at the time of disposal, whether a material should be classified as a hazardous waste. Consult your attorney or appropriate regulatory affairs officer for information on proper disposal.

SECTION 14. TRANSPORT INFORMATION

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DOT Not dangerous goods**IATA** Not dangerous goods**IMDG_US** Not dangerous goods**SECTION 15. REGULATORY INFORMATION**

HMIS Classification : Health hazard: 3
Chronic Health Hazard: *
Flammability: 2
Reactivity: 0
PPI: Safety Glasses, Gloves

National Fire Protection Association (NFPA) Class : IIIA

Emergency Planning Community Right-To-Know (EPCRA)

SARA 302 Components : Not applicable

If listed below, this product contains toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Toxic Substances Control Act (TSCA)

TSCA Status : We certify that all of the components of this product are either listed on the TSCA Inventory or are not subject to the notification requirements per 40 CFR 720.30(h).

:

Clean Air Act & Related Information

Non-volatile (Wt) : 0 %
Method: Not available

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Non-volatile information is not a specification.

Hazardous Air Pollutants

Quinone	106-51-4
Ethylene glycol	107-21-1

If not listed above, this product does not contain HAPs at 1% or 0.1% or greater. Refer to Section 3 for HAP weight percentage.

Resource Conservation and Recovery Act**State Laws**

New Jersey Trade Secret Registry Number for the product (NJ TSRN) : NOT APPLICABLE

California Prop. 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian Environmental Protection Act

Domestic Substances List
DSL Status : We certify that all of the components of this product are listed on the DSL.

WHMIS Classification : D1A
D2A
D2B

SECTION 16. OTHER INFORMATION**Further information**

The information provided in this 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.

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