



# SAFETY DATA SHEET

## E-NOX SHINE

### Section 1. Identification

**GHS product identifier** : E-NOX SHINE  
**Product code** : 53-G 403 (500 mL), 53-G 406 (5 L), 53-G 407(20 L), 53-G 408 (208 L)  
**SDS no.** : L-102E  
**Product type** : Liquid.

#### Identified uses

Stainless steel surface cleaner and protector.

**Manufacturer** : Walter Surface Technologies Inc.  
Bio-Circle - A Division of Walter Surface Technologies Inc.  
810 Day Hill Road  
Windsor, CT 06095  
United States  
General Information: 18665925837  
info.us@walter.com  
www.walter.com

**Emergency telephone number (with hours of operation)** : INFOTRAC® 1-800-535-5053, Outside U.S.A. call collect: 1-352-323-3500  
24 hours/day, 7 days/week.

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
AQUATIC HAZARD (ACUTE) - Category 2

#### GHS label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : H319 - Causes serious eye irritation.  
H315 - Causes skin irritation.  
H401 - Toxic to aquatic life.

#### Precautionary statements

**Prevention** : P280 - Wear protective gloves. Wear eye or face protection.  
P273 - Avoid release to the environment.  
P264 - Wash hands thoroughly after handling.



## Section 2. Hazards identification

**Response** : P302 + P352 + P362-2 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse.  
P332 + P313 - If skin irritation occurs: Get medical attention.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical attention.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Product code** : 53-G 403 (500 mL), 53-G 406 (5 L), 53-G 407(20 L), 53-G 408 (208 L)

### CAS number/other identifiers

**CAS number** : Not applicable.

Ingredient name	%	CAS number
Alcohols, C16-18 and C18-unsatd., ethoxylated and propoxylated	1 - 5	677026-24-3
2-Aminoethanol	0.1 - 1	141-43-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 20 minutes. Get medical attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact** : Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

## Section 4. First aid measures

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes skin irritation.
- Ingestion** : Irritating to mouth, throat and stomach.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No known significant effects or critical hazards.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

### Specific hazards arising from the chemical

- Hazardous thermal decomposition products** : This material is toxic to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

### Special protective actions for fire-fighters

- : No special measures are required.

### Special protective equipment for fire-fighters

- : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled 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). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
2-Aminoethanol	<p><b>ACGIH TLV (United States, 6/2013).</b>            STEL: 15 mg/m<sup>3</sup> 15 minutes.            STEL: 6 ppm 15 minutes.            TWA: 7.5 mg/m<sup>3</sup> 8 hours.            TWA: 3 ppm 8 hours.</p> <p><b>NIOSH REL (United States, 10/2013).</b>            STEL: 15 mg/m<sup>3</sup> 15 minutes.            STEL: 6 ppm 15 minutes.            TWA: 8 mg/m<sup>3</sup> 10 hours.            TWA: 3 ppm 10 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b>            TWA: 6 mg/m<sup>3</sup> 8 hours.            TWA: 3 ppm 8 hours.</p>

**Appropriate engineering controls** : No personal respiratory protective equipment normally required. Avoid breathing dust/fume/gas/mist/vapors/spray. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Recommended: Nitrile gloves 0.4 mm thick, permeation time 480 minutes.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Use a NIOSH/MSHA approved respirator if there is a risk of exposure at levels exceeding the exposure limits. Advice should be sought from respiratory protection specialists.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Milky white.
<b>Odor</b>	: Mild.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: 9.21 [Conc. (% w/w): 1%]
<b>Melting point</b>	: 0°C (32°F)
<b>Boiling point</b>	: 95°C (203°F)
<b>Flash point</b>	: Not available.
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: Not available.
<b>Density</b>	: 0.95 g/ml @ 20°C (68°F)
<b>Solubility</b>	: Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>VOC content (g/L)</b>	: 0

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Aminoethanol	LD50 Oral	Rat	1720 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Aminoethanol	Eyes - Severe irritant	Rabbit	-	250 µg	-
	Skin - Moderate irritant	Rabbit	-	505 mg	-

#### Sensitization

There is no data available.

#### Carcinogenicity

##### Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
White mineral oil (petroleum)	-	-	-	A4	-	-

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
2-Aminoethanol	Category 3	Not applicable.	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

There is no data available.

#### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes skin irritation.
- Ingestion** : Irritating to mouth, throat and stomach.

#### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No known significant effects or critical hazards.



## Section 11. Toxicological information

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Potential chronic health effects

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	172000 mg/kg
Dermal	110000 mg/kg
Inhalation (vapors)	1100 mg/L

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
2-Aminoethanol	Acute EC50 80000 µg/L Fresh water Acute LC50 >100000 µg/L Marine water Acute LC50 170000 µg/L Fresh water	Algae - Isochrysis galbana Crustaceans - Crangon crangon - Adult Fish - Carassius auratus	96 hours 48 hours 96 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
E-NOX SHINE	-	>65%; 28 to 100 day(s)	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2-Aminoethanol	-1.31	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.



## Section 12. Ecological information

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-
<b>Transport hazard class(es)</b>	-	-	-
<b>Packing group</b>	-	-	-
<b>Environmental hazards</b>	No.	No.	No.
<b>Additional information</b>	-	-	-

**AERG** : Not applicable.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. Protect from freezing. Freezing will damage product and render it unusable.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States inventory (TSCA 8b): All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Alcohols, C16-18 and C18-unsatd., ethoxylated and propoxylated 2-Aminoethanol	1 - 5	No.	No.	No.	Yes.	No.
	0.1 - 1	No.	No.	No.	Yes.	No.

### SARA 313

No products were found.

### State regulations

**Massachusetts** : The following components are listed: 2-Aminoethanol

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: White mineral oil (petroleum); 2-Aminoethanol

**Pennsylvania** : The following components are listed: 2-Aminoethanol

### California Prop. 65

No products were found.

### International lists

#### National inventory

**Canada** : One or more components are not listed.

## Section 16. Other information

### History

**Date of issue mm/dd/yyyy** : 11/30/2015

**Date of previous issue** : 08/01/2015

**Version** : 1.2

**Revised Section(s)** : 2, 8, 16.

**Prepared by** : KMK Regulatory Services Inc.

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

### Notice to reader

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