

FlowLogic HS

Version 3.0

Date revised: 4/26/2019

Conforms to regulation (EC) no. EU 453/2010

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: FlowLogic HS **Product Numbers:** SG-BXX-21; SG-BXX-08; SG-BXX-11

1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users.

1.3 Details of the Supplier of the Safety Data Sheet

Supplier

LabLogic Systems, Inc.
1911 N US HWY 301
Suite 140
Tampa
FL 33619
USA
E-mail: solutions@lablogic.com

1.4 Emergency Telephone Number

Tel: +1 813-626-6848

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

H302 – Acute Toxicity-Oral (Category 4)

H312 – Acute Toxicity-Dermal (Category 4)

H315 – Skin Corrosion/Irritation (Category 2)

H319 – Serious Eye Damage/Eye Irritation (Category 2A)

H332 – Acute Toxicity-Inhalation (Category 4)

H411 – Chronic Hazards to the Aquatic Environment (Category 2)

2.2 Label Elements

GHS LABEL ELEMENTS AND CLASSIFICATION

GHS Label Elements



WARNING

H302 – Harmful if swallowed

H312 – Harmful in contact with skin.

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

H332 – Harmful if inhaled.

H412 – Harmful to aquatic life with long lasting effects.

P301+P312 – IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician if you feel unwell.

P304+P341 – IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest and in a position comfortable for breathing.

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

2.3 Other Hazards

None found.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Names/Description

Aromatic hydrocarbons and surfactants with scintillaton phosphors.

Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
Nalkylene	45 - 60	67774-74-7		N.A.
Alcohol ethoxylate phosphate ester	10 - 20	51811-79-1		H315, H319
Butoxy Ethanol	10 - 20	111-76-2	203-905-0	H302, H312, H315, H319, H332
Linear alkyl phenyl ethoxylates	10 - 20	9016-45-9	500-024-6	H315, H319, H411

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion

DO NOT INDUCE VOMITING because of danger of aspiration into the lungs. Get medical attention immediately. Adverse effects of aspiration into the lungs may be delayed up to 48 hours.

Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation

Nalkylene: Sore throat, coughing, laboured breathing, sneezing and burning sensation, depending on the concentration and duration of exposure. May cause central nervous system depression or effects. Symptoms may include headache, excitation, euphoria, dizziness, incoordination, drowsiness, light-headedness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death, depending on the concentration and duration of exposure.

Alcohol ethoxylate phosphate ester: Discomfort in nose and throat, nasal discharge, coughing, difficulty breathing.

Butoxy Ethanol: Burning in nose and throat, coughing. Headache, dizziness, drowsiness, fatigue, nausea.

Linear alkyl phenyl ethoxylates: Discomfort in nose and throat, nasal discharge, coughing, difficulty breathing.

Ingestion

Nalkylene: Salivation, pain, nausea, vomiting and diarrhea. Exposure may also cause central nervous system symptoms similar to those listed under Inhalation.

Alcohol ethoxylate phosphate ester: Abdominal discomfort, nausea, and diarrhea.

Butoxy Ethanol: Headache, dizziness, drowsiness, fatigue, nausea, vomiting.

Linear alkyl phenyl ethoxylates: Abdominal discomfort, nausea, and diarrhea.

Skin

Nalkylene: Drying, reddening, itching, and cracking. Repeated or prolonged contact with large amounts of this material may result in absorption through the skin to produce toxic effects.

Alcohol ethoxylate phosphate ester: Local redness and swelling.

Butoxy Ethanol: Redness, pain and itching.

Linear alkyl phenyl ethoxylates: Local redness and swelling.

Eyes

Nalkylene: Redness, tearing, and blurred vision.

Alcohol ethoxylate phosphate ester: Excess blinking and tear production. Marked redness and swelling of the eye with injury to the cornea.

Butoxy Ethanol: Redness, tearing, and pain.

Linear alkyl phenyl ethoxylates: Excess blinking and tear production. Marked redness and swelling of the eye with injury to the cornea.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Extinguishing media

Water spray, dry chemical, alcohol-resistant foam, or carbon dioxide.

5.2 Special Hazards Arising from the Substance/Mixture

Hazardous Combustion Products – Fires involving this product may release carbon monoxide, carbon dioxide, reactive hydrocarbons and irritating vapors.

Hazardous Decomposition Products – Combustion may produce toxic oxides of carbon, nitrogen, sulfur and reactive hydrocarbons.

Hazardous Polymeriation – Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

5.3 Advice for Firefighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

5.4 Further Information

No data available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

Wear appropriate protective equipment as specified in Section 8.

6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

Eliminate source of ignition. Ventilate area. Cover with absorbent material (dry sand or earth) to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors.

6.4 References to Other Sections

For disposal information, see Section 13. For Protective clothing and equipment, see Section 8.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Transfer methods should avoid static sparks. Do not eat, drink, or smoke in areas of use or storage.

7.2 Conditions for Safe Storage (including any incompatibles)

Keep in a tightly closed container, stored in a cooled, dry, ventilated area away from sources of heat or ignition. Protect from physical damage.

Incompatibles

Nalkylene: Oxidizing agents.

Alcohol ethoxylate phosphate ester: Oxidizing agents.

Butoxy Ethanol: Strong oxidizing agents. Strong bases and salts of strong bases at elevated temperatures. Aluminum surfaces.

Linear alkyl phenyl ethoxylates: Oxidizing agents.

7.3 Specific End Uses

Investigational research by professional users.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

8.1 Control Parameters

Component: Nalkylene

ACGIH Threshold Limit Value (TLV): None established

OSHA Permissible Exposure Limit (PEL): None established

Component: Alcohol ethoxylate phosphate ester

ACGIH Threshold Limit Value (TLV): None established

OSHA Permissible Exposure Limit (PEL): None established

Component: Butoxy Ethanol

ACGIH Threshold Limit Value (TLV): 25 ppm (skin)

OSHA Permissible Exposure Limit (PEL): 25 ppm

Component: Linear alkyl phenyl ethoxylates

ACGIH Threshold Limit Value (TLV): None established

OSHA Permissible Exposure Limit (PEL): None established

8.2 Exposure Controls

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.

Respiratory Protection

For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.

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 Protection

Wear protective gloves and clean body covering clothing.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical & Chemical Properties

a. Appearance	Aromatic hydrocarbon	l. Vapor Density (Air = 1)	Not determinable
b. Odor	None	m. Relative Density	0.91
c. Odor Threshold	N/A	n. Water Solubility	30% by weight @20C
d. pH	N/A	o. Partition Coefficient n-octanol/water	Mixture
e. Melting/Freezing Point (°C)	0	p. Autoignition Temperature (°C)	N/D
f. Boiling point (°C)	302-318	q. Decomposition Temperature (°C)	N/A
g. Flash Point (°C)	82	r. Viscosity	N/D
h. Evaporation Rate	Not measureable	s. Explosive Properties	N/A
i. Flammability	N/A	t. Oxidizing Properties	Not an oxidizer
j. Upper/Lower Flammability or Explosive Limits	N/D		
k. Vapor Pressure	< 0.1		

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity

Reacts with strong alkali. May corrode metals.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage.

10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

10.4 Conditions to Avoid

Heat, sources of ignition.

10.5 Incompatible Materials

Nalkylene: Oxidizing agents.

Alcohol ethoxylate phosphate ester: Oxidizing agents.

Butoxy Ethanol: Strong oxidizing agents. Strong bases and salts of strong bases at elevated temperatures. Aluminum surfaces.

Linear alkyl phenyl ethoxylates: Oxidizing agents.

10.6 Hazardous Decomposition Products

Combustion may produce toxic oxides of carbon, nitrogen, sulfur and reactive hydrocarbons.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product LD50 Values

Oral Rat LD50 (mg/kg)

No Data

Dermal Rabbit LD50 (mg/kg)

No Data

Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Nalkylene	No	No	None
Alcohol ethoxylate phosphate ester	No	No	None
Butoxy Ethanol	No	No	None
Linear alkyl phenyl ethoxylates	No	No	None

Potential Health Effects

Inhalation

Nalkylene – Breathing of the mists, vapours or fumes may irritate the nose, throat and lungs.

Alcohol ethoxylate phosphate ester – Vapours or mist, especially as generated from heating the material or as from exposure in poorly ventilated areas or confined spaces, may be irritating and cause discomfort in nose and throat. Prolonged exposure may cause difficulty breathing.

Butoxy Ethanol – Vapours may cause irritation to the nose, throat, and respiratory tract and are toxic if inhaled.

Linear alkyl phenyl ethoxylates – Vapours or mist, especially as generated from heating the material or as from exposure in poorly ventilated areas or confined spaces, may be irritating and cause discomfort in nose and throat. Prolonged exposure may cause difficulty breathing.

Ingestion

Nalkylene – May cause irritation of the mouth, throat, and gastrointestinal tract. Exposure may also cause central nervous system symptoms.

Alcohol ethoxylate phosphate ester – May be harmful by ingestion.

Butoxy Ethanol – Moderately toxic if ingested.

Linear alkyl phenyl ethoxylates – May be harmful by ingestion.

Skin

Nalkylene – May cause skin irritation.

Alcohol ethoxylate phosphate ester – Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort.

Butoxy Ethanol – Product is mildly irritating to the skin and toxic if absorbed through the skin.

Linear alkyl phenyl ethoxylates – Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort.

Eyes

Nalkylene – Exposure to vapours, fumes or mists may cause irritation. Direct contact may cause irritation.

Alcohol ethoxylate phosphate ester – Causes irritation and possible injury to the cornea.

Butoxy Ethanol – Causes severe eye irritation.

Linear alkyl phenyl ethoxylates – Causes irritation and possible injury to the cornea.

Carcinogenicity

Nalkylene – Not listed by NTP or IARC as a known or possible carcinogen.

Alcohol ethoxylate phosphate ester – Not listed by NTP or IARC as a known or possible carcinogen.

Butoxy Ethanol – Not listed as a known or anticipated carcinogen by NTP or IARC.

Linear alkyl phenyl ethoxylates – Not listed by NTP or IARC as a known or possible carcinogen.

Mutagenicity

Nalkylene – No information available.

Alcohol ethoxylate phosphate ester – No information available.

Butoxy Ethanol – No information found.

Linear alkyl phenyl ethoxylates – No information available.

Reproductive Toxicity

Nalkylene – No information available.

Alcohol ethoxylate phosphate ester – No information available.

Butoxy Ethanol – Inhalation exposure of pregnant rabbits caused some lethality to the dam and fetus at 200 ppm, but there were no effects at 100 ppm and below. Inhalation exposure to pregnant rats caused irritancy to the dams and related fetotoxicity at 200 and 100 ppm, but there were no effects at 50 ppm and below.

Linear alkyl phenyl ethoxylates – No information available.

Teratogenic Effects

Nalkylene – No information available.

Alcohol ethoxylate phosphate ester – No information available.

Butoxy Ethanol – Has not been shown to cause birth defects.

Linear alkyl phenyl ethoxylates – No information available.

Routes of Entry

Nalkylene – Ingestion, inhalation, skin contact.

Alcohol ethoxylate phosphate ester – Ingestion, inhalation.

Butoxy Ethanol – Inhalation, ingestion, skin contact.

Linear alkyl phenyl ethoxylates – Ingestion, inhalation.

Target Organ Statement

Nalkylene – No information available.

Alcohol ethoxylate phosphate ester – No information available.

Butoxy Ethanol – Pre-existing skin, eye, and lung disorders may be aggravated by exposure.

Linear alkyl phenyl ethoxylates – No information available.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

COMPONENT: Nalkylene

	Vetebrates	Invertebrates	Algae	Micro-organisms
Aquatic Toxicity (ppm unless otherwise noted)	NOEC10 (14 days, zebrafish) >10 ug/L	EC50 (daphnia) > 0.041 mg/l	EC50 (72 hrs) >100 ug/l	No data

	Birds	Anthropods	Plants	Micro-organisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

COMPONENT: Alcohol ethoxylate phosphate ester

	Vetebrates	Invertebrates	Algae	Micro-organisms
Aquatic Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

	Birds	Anthropods	Plants	Micro-organisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

COMPONENT: Butoxy Ethanol

	Vetebrates	Invertebrates	Algae	Micro-organisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96hr, trout) 1464 mg/l	EC50 (48 hr daphnia) 1800 mg/L	EC50 (72 hr) 911 mg/l	Toxicity Threshold 483 mg/L

	Birds	Anthropods	Plants	Micro-organisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

COMPONENT: Linear alkyl phenyl ethoxylates

	Vetebrates	Invertebrates	Algae	Micro-organisms
Aquatic Toxicity (ppm unless otherwise noted)	No data	LC50 (48 hrs daphnia) 1.821 mg/L	EC50 (48 hrs) 20 mg/L	No data

	Birds	Anthropods	Plants	Micro-organisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

12.2 Persistence and Degradability

Nalkylene – Readily biodegradable (>60% elimination in 28 days)

Alcohol ethoxylate phosphate ester – Not readily biodegradable- 13% elimination in 28 days

Butoxy Ethanol – Readily biodegradable (90% in 28 days)

Linear alkyl phenyl ethoxylates – Readily biodegradable >97% elimination in 30 days

12.3 Bioaccumulative Potential

Nalkylene – BCF 35

Alcohol ethoxylate phosphate ester – No data

Butoxy Ethanol – No data

Linear alkyl phenyl ethoxylates – No data

12.4 Mobility in Soil

Nalkylene – Log Koc 4.34

Alcohol ethoxylate phosphate ester – Ultimate destination: water or sediment

Butoxy Ethanol – No data

Linear alkyl phenyl ethoxylates – No data

12.5 Results of PBT and vPvB Assessment

Nalkylene – Not PBT/vPvB

Alcohol ethoxylate phosphate ester – No data

Butoxy Ethanol – Not PBT/vPvB

Linear alkyl phenyl ethoxylates – Substance is PBT / vPvB

12.6 Other Adverse Effects

Nalkylene – None

Alcohol ethoxylate phosphate ester – None

Butoxy Ethanol – None

Linear alkyl phenyl ethoxylates – None

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

SECTION 14 – TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	N/A	N/A	N/A	N/A
14.2 Shipping Name	Not regulated	Not regulated	Not regulated	Not regulated
14.3 Hazard Class	N/A	N/A	N/A	N/A
14.4 Packing Group	N.A.	N/A	N/A	N/A
14.5 Environmental Hazards	N/A	N/A	N/A	N/A
14.6 Special Precautions	N/A	N/A	N/A	N/A

SECTION 15 – REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture

United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Phenyl Xylyl Ethane (PXE)	No	No	No	Yes	No
Alcohol ethoxylate phosphate ester	No	No	No	Yes	No
Butoxy Ethanol	Yes	No	No	Yes	No
Linear alkyl phenyl ethoxylates	No	No	No	Yes	No

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 16 – OTHER INFORMATION

Revisional Updates

4/26/2019 – Updated Section 1.4

5/29/2015 – Updated Sections 2.1 and 3.2

8/5/2013 – Released Version 1.0

NFPA Codes

Health 1 Flammability 1 Reactivity 0

Dangers

Nalkylene

None.

Alcohol ethoxylate phosphate ester

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

Butoxy Ethanol

H302 – Harmful if swallowed.

H312 – Harmful in contact with skin.

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

H332 – Harmful if inhaled.

Linear alkyl phenyl ethoxylates

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

H411 – Toxic to aquatic life with long lasting effects.

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of the use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending licence under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

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