

SAFETY DATA SHEET

Luminex[®]

ARIES Optical Calibration Mixes

Section 1. Identification

GHS product identifier : ARIES Optical Calibration Mixes
Other means of identification : Not available.
Product type : Liquid.
Code :

Identified uses

For Professional use only. Use as per Product Insert.

Supplier/Manufacturer : Luminex Corporation
 1224 Deming Way
 Madison, Wisconsin, USA 53717
 Tel: 1-512-219-8020
 Toll free: 1-877-785-2323 (US and Canada)
 1-512-381-4397 (International)
 Fax: 1-512-219-5114
 Email: support@luminexcorp.com

Emergency telephone number (with hours of operation) : 1-512-381-4397
 24/7

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Optical Calibration Mix 6-dye Not classified.
 Optical Calibration Mix Slot 1 Not classified.
 Optical Calibration Mix Slot 2 Not classified.
 Optical Calibration Mix Slot 3 Not classified.
 Optical Calibration Mix Slot 4 Not classified.
 Optical Calibration Mix Slot 5 Not classified.



Section 2. Hazards identification

Calibration Mix
Slot 6
Optical Calibration
Background Mix

Not classified.

GHS label elements

Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

Hazards not otherwise classified (HNOC)

Physical hazards not otherwise classified (PHNOC) : None known.
Health hazards not otherwise classified (HHNOC) : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.
Product code : Not available.

There are no 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 : Not applicable.
Inhalation : Not applicable.
Skin contact : Not applicable.
Ingestion : Not applicable.

Most important symptoms/effects, acute and delayed

Potential acute health effects



Section 4. First aid measures

Eye contact	<ul style="list-style-type: none"> : Optical Calibration Mix 6-dye No known significant effects or critical hazards. Optical Calibration Mix Slot 1 No known significant effects or critical hazards. Optical Calibration Mix Slot 2 No known significant effects or critical hazards. Optical Calibration Mix Slot 3 No known significant effects or critical hazards. Optical Calibration Mix Slot 4 No known significant effects or critical hazards. Optical Calibration Mix Slot 5 No known significant effects or critical hazards. Optical Calibration Mix Slot 6 No known significant effects or critical hazards. Optical Calibration Background Mix
Inhalation	<ul style="list-style-type: none"> : Optical Calibration Mix 6-dye No known significant effects or critical hazards. Optical Calibration Mix Slot 1 No known significant effects or critical hazards. Optical Calibration Mix Slot 2 No known significant effects or critical hazards. Optical Calibration Mix Slot 3 No known significant effects or critical hazards. Optical Calibration Mix Slot 4 No known significant effects or critical hazards. Optical Calibration Mix Slot 5 No known significant effects or critical hazards. Optical Calibration Mix Slot 6 No known significant effects or critical hazards. Optical Calibration Background Mix
Skin contact	<ul style="list-style-type: none"> : Optical Calibration Mix 6-dye No known significant effects or critical hazards. Optical Calibration Mix Slot 1 No known significant effects or critical hazards. Optical Calibration Mix No known significant effects or critical hazards.

Section 4. First aid measures

	Slot 2	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 3	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 4	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 5	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 6	
	Optical Calibration Background Mix	No known significant effects or critical hazards.
Ingestion	: Optical Calibration Mix 6-dye	No known significant effects or critical hazards.
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 1	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 2	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 3	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 4	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 5	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 6	
	Optical Calibration Background Mix	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

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

Notes to physician	: None identified.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No special measures required.

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 : Highly flammable liquid and vapor.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/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 : 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 : No special requirements.

Methods and materials for containment and cleaning up

Spill : Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

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.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store at -15°C to -30°C, protected from light.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

None.

Canada

Occupational exposure limits

None.

Appropriate engineering controls : No special ventilation requirements.

Environmental exposure controls : No special measures required.

Individual protection measures

Hygiene measures : Follow good industrial hygiene practice.

Eye/face protection : Not required under normal conditions of use.

Skin protection

Hand protection : Not required under normal conditions of use.

Body protection : Not required under normal conditions of use.

Other skin protection : Not required under normal conditions of use.

Respiratory protection : Not required under normal conditions of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Optical Calibration Mix 6-dye Liquid.
Optical Calibration Mix Slot 1 Liquid.
Optical Calibration Mix Slot 2 Liquid.
Optical Calibration Mix Slot 3 Liquid.
Optical Calibration Mix Slot 4 Liquid.
Optical Calibration Mix Slot 5 Liquid.
Optical Calibration Mix Slot 6 Liquid.
Optical Calibration Background Mix Liquid.

Section 9. Physical and chemical properties

Color	: Optical Calibration Mix 6-dye	Not available.
	Optical Calibration Mix Slot 1	Not available.
	Optical Calibration Mix Slot 2	Not available.
	Optical Calibration Mix Slot 3	Not available.
	Optical Calibration Mix Slot 4	Not available.
	Optical Calibration Mix Slot 5	Not available.
	Optical Calibration Mix Slot 6	Not available.
	Optical Calibration Background Mix	Not available.
Odor	: Optical Calibration Mix 6-dye	Not available.
	Optical Calibration Mix Slot 1	Not available.
	Optical Calibration Mix Slot 2	Not available.
	Optical Calibration Mix Slot 3	Not available.
	Optical Calibration Mix Slot 4	Not available.
	Optical Calibration Mix Slot 5	Not available.
	Optical Calibration Mix Slot 6	Not available.
	Optical Calibration Background Mix	Not available.
Odor threshold	: Not available.	

Section 9. Physical and chemical properties

pH	: Optical Calibration Mix 6-dye Optical Calibration Mix Slot 1 Optical Calibration Mix Slot 2 Optical Calibration Mix Slot 3 Optical Calibration Mix Slot 4 Optical Calibration Mix Slot 5 Optical Calibration Mix Slot 6 Optical Calibration Background Mix	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Melting point	:	Not available.
Boiling point	:	Not available.
Flash point	:	Optical Calibration Mix 6-dye Optical Calibration Mix Slot 1 Optical Calibration Mix Slot 2 Optical Calibration Mix Slot 3 Optical Calibration Mix Slot 4 Optical Calibration Mix Slot 5 Optical Calibration Mix Slot 6 Optical Calibration Background Mix

Section 9. Physical and chemical properties

Evaporation rate : **Optical Calibration Mix 6-dye** Not available.
Optical Calibration Mix Slot 1 Not available.
Optical Calibration Mix Slot 2 Not available.
Optical Calibration Mix Slot 3 Not available.
Optical Calibration Mix Slot 4 Not available.
Optical Calibration Mix Slot 5 Not available.
Optical Calibration Mix Slot 6 Not available.
Optical Calibration Background Mix Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : **Optical Calibration Mix 6-dye** Not available.
Optical Calibration Mix Slot 1 Not available.
Optical Calibration Mix Slot 2 Not available.
Optical Calibration Mix Slot 3 Not available.
Optical Calibration Mix Slot 4 Not available.
Optical Calibration Mix Slot 5 Not available.
Optical Calibration Mix Slot 6 Not available.
Optical Calibration Background Mix Not available.

Solubility : Not available.



Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Volatility : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

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

Section 11. Toxicological information

Eye contact	:	Optical Calibration Mix 6-dye	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 1	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 2	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 3	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 4	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 5	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 6	No known significant effects or critical hazards.	
		Optical Calibration Background Mix	No known significant effects or critical hazards.	
	Inhalation	:	Optical Calibration Mix 6-dye	No known significant effects or critical hazards.
			Optical Calibration Mix Slot 1	No known significant effects or critical hazards.
		Optical Calibration Mix Slot 2	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 3	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 4	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 5	No known significant effects or critical hazards.	
		Optical Calibration Mix Slot 6	No known significant effects or critical hazards.	
		Optical Calibration Background Mix	No known significant effects or critical hazards.	
Skin contact		:	Optical Calibration Mix 6-dye	No known significant effects or critical hazards.
			Optical Calibration Mix Slot 1	No known significant effects or critical hazards.
		Optical Calibration Mix	No known significant effects or critical hazards.	

Section 11. Toxicological information

	Slot 2	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 3	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 4	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 5	
	Optical Calibration Mix	No known significant effects or critical hazards.
	Slot 6	
	Optical Calibration Background Mix	No known significant effects or critical hazards.
Ingestion	: Optical Calibration Mix 6-dye	No known significant effects or critical hazards.
	Optical Calibration Mix Slot 1	No known significant effects or critical hazards.
	Optical Calibration Mix Slot 2	No known significant effects or critical hazards.
	Optical Calibration Mix Slot 3	No known significant effects or critical hazards.
	Optical Calibration Mix Slot 4	No known significant effects or critical hazards.
	Optical Calibration Mix Slot 5	No known significant effects or critical hazards.
	Optical Calibration Mix Slot 6	No known significant effects or critical hazards.
	Optical Calibration Background Mix	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

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

Section 11. Toxicological information

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
Optical Calibration Mix 6-dye Oral	69712.1 mg/kg
Optical Calibration Mix Slot 1 Oral	69712.1 mg/kg
Optical Calibration Mix Slot 2 Oral	69712.1 mg/kg
Optical Calibration Mix Slot 3 Oral	69712.1 mg/kg
Optical Calibration Mix Slot 4 Oral	69712.1 mg/kg
Optical Calibration Mix Slot 5 Oral	69712.1 mg/kg
Optical Calibration Mix Slot 6 Oral	69712.1 mg/kg
Optical Calibration Background Mix Oral	69712.1 mg/kg

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : No data available.

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. No specific disposal consideration.

Section 14. Transport information

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

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.

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 : **United States inventory (TSCA 8b):** Not determined.

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 I Chemicals (Precursor Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.



Section 15. Regulatory information

SARA 311/312

Classification : Not applicable.

SARA 313

No products were found.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

No products were found.

Canada

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory : Not determined.

Section 16. Other information

History

Date of issue mm/dd/yyyy : 08/15/2015

Version : 1

Prepared by : KMK Regulatory Services Inc.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

