

Classified as hazardous in accordance with the criteria of EPA New Zealand

Section 1 - Identification

Product Identifier

Product Name Histo marking dye (Black, Blue, Green, Red, Yellow)

Recommended Use Laboratory chemicals.
Uses advised against No Information available

Product Code	ALP3120125, ALP3120124, ALP3120128, ALP3120127, ALP3120126
Address	Thermo Fisher Scientific New Zealand Ltd 244 Bush Road, Albany, Auckland, New Zealand
Emergency Tel.	CHEMTREC® 09 980 6780 or +64 9 980 6780
Telephone / Fax Numbers	Tel: 09 980 6700 Fax: 09 980 6788
E-mail address	ANZinfo@thermofisher.com

Section 2 - Hazard(s) Identification

Classification under Work Safe New Zealand

Classified as hazardous in accordance with the criteria of EPA New Zealand

HSNO Approval Number HSR002662

GHS Classification

Physical hazards

Flammable liquids

Category 2

Health hazards

Serious Eye Damage/Eye Irritation
 Carcinogenicity

Category 2
 Category 2

Environmental hazards

Based on available data, the classification criteria are not met

Label Elements



Signal Word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor

H226 - Flammable liquid and vapor

H319 - Causes serious eye irritation

H351 - Suspected of causing cancer

Precautionary Statements

Prevention

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 - Keep container tightly closed

P240 - Ground and bond container and receiving equipment

P242 - Use non-sparking tools

P243 - Take action to prevent static discharges

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Storage

P403 + P235 - Store in a well-ventilated place. Keep cool

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards which do not result in classification

This product does not contain any known or suspected endocrine disruptors

Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Glycerin	56-81-5	30-60
Ethyl alcohol	64-17-5	30-60
Diarylide Yellow AAOT	5468-75-7	Yellow only
Fluorescent red pigment	RR-20187-6	Red only
Phthalocyanine blue	147-14-8	Blue only
Malachite green	569-64-2	Green only
Carbon black	1333-86-4	Black only

Section 4 - First Aid Measures

Description of first aid measures

New Zealand Emergency Tel.

CHEMTREC®
09 980 6780 or +64 9 980 6780

Inhalation

Remove to fresh air.

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Self-Protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
First Aid Facilities	Eyewash, safety shower and washroom.
Most important symptoms and effects	Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting
Notes to Physician	Treat symptomatically.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

None under normal use conditions.

Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 - Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Emergency procedures

Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions

See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up

Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Precautions to prevent secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

Section 7 - Handling and Storage

Precautions for Safe Handling

Advice on safe handling

Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks and flame.

Incompatible Materials

None known.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

AS 1940-2004 - The storage and handling of flammable and combustible liquids

Section 8 - Exposure Controls and Personal Protection

Control parameters

Exposure limits

NZ - Workplace Exposure Standards and Biological Exposure Indices (6th edition). New Zealand Department of Labor

UK - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020.

AUS - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)]

Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)] updated in August, 2005. Safe Work Australia

ACGIH - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace.

Component	New Zealand WEL	Australia	ACGIH TLV	The United Kingdom
Glycerin	TWA: 10 mg/m ³	TWA: 10 mg/m ³		TWA: 10 mg/m ³ 8 hr (mist only)
Ethyl alcohol	TWA: 1000 ppm TWA: 1880 mg/m ³	TWA: 1000 ppm TWA: 1880 mg/m ³	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1920 mg/m ³ TWA WEL - STEL: 3000 ppm STEL: 5760 mg/m ³ STEL
Phthalocyanine blue			TWA: 1 mg/m ³	STEL: 2 mg/m ³ 15 min TWA: 1 mg/m ³ 8 hr
Carbon black	TWA: 3 mg/m ³	TWA: 3 mg/m ³	TWA: 3 mg/m ³	STEL: 7 mg/m ³ 15 min TWA: 3.5 mg/m ³ 8 hr

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Individual protection measures, such as personal protective equipment

Eye Protection

Wear safety glasses with side shields (or goggles) (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Disposable gloves.	See manufacturers recommendations	-	AS/NZS 2161	(minimum requirement)

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection

Long sleeved clothing

Respiratory Protection

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices (or AUS/NZ equivalent)
When RPE is used a face piece Fit Test should be conducted

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State	Viscous liquid Liquid	
Appearance	Varies Blue Black Red Yellow Green	
Odor	No information available	
Odor Threshold	No data available	
pH	No information available	
Melting Point/Range	-117 °C / -178.6 °F	
Softening Point	No data available	
Boiling Point/Range	78 °C / 172.4 °F	
Flammability (liquid)	Highly flammable	On basis of test data
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Flash Point	14 °C / 57.2 °F	Method - No information available
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	No data available	
Water Solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
Glycerin	-1.75	
Ethyl alcohol	-0.32	
Diarylide Yellow AAOT	0.5	
Phthalocyanine blue	6.6	
Vapor Pressure	No data available	
Density / Specific Gravity	No data available	
Bulk Density	Not applicable	Liquid
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

Other information

Explosive Properties Vapors may form explosive mixtures with air

Section 10 - Stability and Reactivity

Reactivity None known, based on information available

Stability Stable under normal conditions.

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Hazardous Polymerization No information available.

Hazardous Reactions No information available.

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

Incompatible Materials None known.

Hazardous Decomposition Products None under normal use conditions.

Section 11 - Toxicological Information

Acute Effects

Information on likely routes of exposure

Product Information

Inhalation Not an expected route of exposure.

Eyes Not an expected route of exposure.

Skin No known effect based on information supplied.

Ingestion Not an expected route of exposure.

Numerical measures of toxicity

(a) acute toxicity;

Oral Based on available data, the classification criteria are not met

Dermal Based on available data, the classification criteria are not met

Inhalation Based on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glycerin	12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 2.75 mg/L/4h (Rat)(mist)
Ethyl alcohol	LD50 = 7060 mg/kg (Rat)		20000 ppm/10H (Rat)
Diarylide Yellow AAOT	LD50 > 5 g/kg (Rat)		LC50 > 230 mg/m ³ (Rat) 4 h
Phthalocyanine blue	LD50 > 10000 mg/kg (Rat)	LD50 > 5000 mg/kg (Rat)	
Carbon black	LD50 > 15400 mg/kg (Rat)	LD50 > 3 g/kg (Rabbit)	LC50 > 4.6 mg/m ³ (Rat) 4 h

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;
Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	New Zealand	Australia	New South Wales	Western Australia	IARC	EU	UK	Germany
Carbon black	Suspected carcinogen				Group 2B			Cat. 3B

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available
Target Organs No information available.

(j) aspiration hazard; No data available

Symptoms / effects, both acute and delayed

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Section 12 - Ecological Information

Ecotoxicity

Aquatic ecotoxicity Contains a substance which is: Toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Glycerin	LC50: 51 - 57 mL/L, 96h static (Oncorhynchus mykiss)			
Ethyl alcohol	Fathead minnow (Pimephales promelas) LC50 = 14200 mg/l/96h	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h	EC50 (72h) = 275 mg/l (Chlorella vulgaris)	Photobacterium phosphoreum: EC50 = 34634 mg/L/30 min Photobacterium phosphoreum: EC50 = 35470 mg/L/5 min
Carbon black		EC50: > 5600 mg/L, 24h (Daphnia magna)		

Terrestrial ecotoxicity

Component	Earthworm	Avian	Honeybees
Ethyl alcohol	Acute toxicity: LC50 0.1 - 1 mg/cm2 (Eisenia foetida, 48 h, filter paper)		

Persistence and Degradability

Persistence	Persistence is unlikely, based on information available.
Degradation in sewage treatment plant	Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.
Bioaccumulative Potential	Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Glycerin	-1.75	No data available
Ethyl alcohol	-0.32	No data available
Diarylide Yellow AAOT	0.5	>=0 - <=6.2 dimensionless
Phthalocyanine blue	6.6	0.3 - 11 dimensionless

Mobility	The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air
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Other adverse effects

Endocrine Disruptor Information	This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant	This product does not contain any known or suspected substance
Ozone Depletion Potential	This product does not contain any known or suspected substance

Section 13 - Disposal Considerations

Waste treatment methods

Waste from Residues/Unused Products	Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.
Contaminated Packaging	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.
Other Information	Disposal agencies or waste contractors must comply with the New Zealand Hazardous Substances (Disposal) Regulations . Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations.

Section 14 - Transport Information

Component	Hazchem Code
Ethyl alcohol	2YE
64-17-5 (30-60)	2Y

NZS 5433:2020

UN-No	UN1170
Proper Shipping Name	ETHANOL
Technical Shipping Name	HISTOLOGY MARKING DYE
Hazard Class	3
Packing Group	II

IATA

UN-No UN1170
Proper Shipping Name ETHANOL
Technical Shipping Name HISTOLOGY MARKING DYE
Hazard Class 3
Packing Group II

IMDG/IMO

UN-No UN1170
Proper Shipping Name ETHANOL
Technical Shipping Name HISTOLOGY MARKING DYE
Hazard Class 3
Packing Group II

Environmental hazards No hazards identified

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable, packaged goods

Special Precautions No special precautions required. Please refer to the applicable dangerous goods regulations for additional information.

Additional information None known

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

HSNO Approval Number	HSR002662
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National Regulations

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information. Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information.

Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

Component	New Zealand
Carbon black	Suspected carcinogen

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Diarylide Yellow AAOT	-	Use restricted. See item 75. (see link for restriction details)	-
Phthalocyanine blue	-	Use restricted. See item 75. (see link for restriction details)	-
Malachite green	-	Use restricted. See item 75. (see link for restriction details)	-
Carbon black	-	Use restricted. See item 75. (see link for restriction details)	-

<https://echa.europa.eu/substances-restricted-under-reach>

International Inventories

New Zealand (NZIoC), Australia (AICS), Europe (EINECS/ELINCS/NLP), Korea (KECL), China (IECSC), Taiwan (TCSI), Japan (ENCS), Japan (ISHL), Canada (DSL/NDL), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	NZIoC	AICS	EINECS	ELINCS	NLP	KECL	IECSC	TCSI
Glycerin	56-81-5	X	X	200-289-5	-	-	KE-29297	X	X
Ethyl alcohol	64-17-5	X	X	200-578-6	-	-	KE-13217	X	X
Diarylide Yellow AAOT	5468-75-7	X	X	226-789-3	-	-	KE-10086	X	X
Fluorescent red pigment	RR-20187-6	-	-	-	-	-	-	-	-
Phthalocyanine blue	147-14-8	X	X	205-685-1	-	-	KE-33250	X	X
Malachite green	569-64-2	X	X	209-322-8	-	-	KE-06976	X	X
Carbon black	1333-86-4	X	X	215-609-9	435-640-3	-	X	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDL	PICCS	ISHL	ENCS
Glycerin	56-81-5	X	ACTIVE	X	-	X	X	X
Ethyl alcohol	64-17-5	X	ACTIVE	X	-	X	X	X
Diarylide Yellow AAOT	5468-75-7	X	ACTIVE	X	-	X	X	X
Fluorescent red pigment	RR-20187-6	-	-	-	-	-	-	-
Phthalocyanine blue	147-14-8	X	ACTIVE	X	-	X	X	X
Malachite green	569-64-2	X	ACTIVE	X	-	X	X	X
Carbon black	1333-86-4	X	ACTIVE	X	-	X	X	X

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

Section 16 - Other Information

This safety data sheet complies with the requirements of the EPA Hazardous Substances (Hazard Classification) Notice 2020 and WorkSafe New Zealand Regulations

Legend

NZIoC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

NZS 5433:2020 - Transport of Dangerous Goods on Land

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

LD50 - Lethal Dose 50%

AICS - Australian Inventory of Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

CAS - Chemical Abstracts Service

ACGIH - American Conference of Governmental Industrial Hygienists

PNEC - Predicted No Effect Concentration

OECD - Organisation for Economic Co-operation and Development

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

ADG - Australian Code for the Transport of Dangerous Goods by Road and Rail

LC50 - Lethal Concentration 50%

EC50 - Effective Concentration 50%
WEL - Workplace Exposure Limit
DNEL - Derived No Effect Level
POW - Partition coefficient Octanol:Water
vPvB - very Persistent, very Bioaccumulative
VOC - (Volatile Organic Compound)

ATE - Acute Toxicity Estimate
RPE - Respiratory Protective Equipment
NOEC - No Observed Effect Concentration
BCF - Bioconcentration factor
PBT - Persistent, Bioaccumulative, Toxic

Key literature references and sources for data

HSNO classifications provided in the New Zealand Chemical Classification Information Database (CCID).
<https://echa.europa.eu/information-on-chemicals>
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS
EPA Guide to classifying hazardous substances in New Zealand
EPA - Assigning a product to an existing HSNO approval guide

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards	On basis of test data
Health Hazards	Calculation method
Environmental hazards	Calculation method

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Revision Date	14-Jul-2023
Revision Summary	Update to GHS format

Disclaimer

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

End of Safety Data Sheet