Hazard Overview

Version 6.17
Revision Date 07/28/2026
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SECTION 1. IDENTIFICATION

1.1 Product identifiers

Product name : Color Reference Solutions acc. to Ph Eur

Product Number : 86293
Brand : Sigma-Aldrich

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

Restrictions on use : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
SPRUCE ST 3050
63103 St. Louis

Telephone :(314) 771-5765
Telefax: (800) 325-5052

1.4 Emergency telephone number

Emergency Phone # : 800 424 9300 (CHEMTREC) 24/7
+1 703 527 3887 (CHEMTREC) 24/7

This is a summary SDS for a kit. For the full SDS for each of the components listed in section 16 please visit our website.

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SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards for the product as supplied

Corrosive to metals	:	Category 1
Respiratory sensitisation	:	Category 1
Skin sensitisation	:	Category 1
Carcinogenicity (Inhalation)	:	Category 1B
Reproductive toxicity	:	Category 1B
Short-term (acute) aquatic hazard	:	Category 2
Long-term (chronic) aquatic hazard	:	Category 2

Other hazards

None known.

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements :
H290 May be corrosive to metals.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H350 May cause cancer by inhalation.
H360 May damage fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P234 Keep only in original packaging.
P261 Avoid breathing mist or vapours.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.

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P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P390 Absorb spillage to prevent material damage.
P391 Collect spillage.

Storage:

P405 Store locked up.
P406 Store in a corrosion resistant container with a resistant inner liner.

Disposal:

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Please refer to component Safety Data Sheet and/or to Section 16 Kit components

SECTION 4. FIRST AID MEASURES

Refer to component SDS

SECTION 5. FIREFIGHTING MEASURES

Refer to component SDS

SECTION 6. ACCIDENTAL RELEASE MEASURES

Refer to component SDS

SECTION 7. HANDLING AND STORAGE

For precautions see section 2 GHS label elements

Advice on safe handling : Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

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Conditions for safe storage	:	No metal containers.
Further information on storage conditions	:	Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.
Storage class	:	6.1D, Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects
Recommended storage temperature	:	Recommended storage temperature see product label.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Refer to component SDS

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Refer to component SDS

SECTION 10. STABILITY AND REACTIVITY

Refer to component SDS

SECTION 11. TOXICOLOGICAL INFORMATION

Refer to component SDS

SECTION 12. ECOLOGICAL INFORMATION

Refer to component SDS

SECTION 13. DISPOSAL CONSIDERATIONS

Refer to component SDS

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 3316
Proper shipping name	:	Chemical kit
Class	:	9
Packing group	:	III
Labels	:	Class 9 - Miscellaneous dangerous substances and articles

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Packing instruction (cargo aircraft)	:	960
Packing instruction (passenger aircraft)	:	960

IMDG-Code

UN number	:	UN 3316
Proper shipping name	:	CHEMICAL KIT
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-P
Marine pollutant	:	no

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number	:	UN 3316
Proper shipping name	:	Chemical kit
Class	:	9
Packing group	:	III
Labels	:	Class 9 - Miscellaneous dangerous substances and articles
ERG Code	:	171
Marine pollutant	:	no
Poison Inhalation Hazard	:	No

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

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

SECTION 16. OTHER INFORMATION

Kit Components:

Hydrochloric acid solution	Katayama	13-1700
Color Reference Solutions acc. to Ph Eur	Sigma-Aldrich	72024

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Color Reference Solutions acc. to Ph Eur	Sigma-Aldrich	73183
Color Reference Solutions acc. to Ph Eur	Sigma-Aldrich	71984
Color Reference Solutions acc. to Ph Eur	Sigma-Aldrich	72429
Color Reference Solutions acc. to Ph Eur	Sigma-Aldrich	77094
Color Reference Solutions BY6	Sigma-Aldrich	75916
Color Reference Solutions BY7	Sigma-Aldrich	71983

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is

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applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.
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Revision Date : 07/28/2026

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US / EN

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Kit Components:

Hydrochloric acid solution					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Katayama - 13-1700		Warning	May be corrosive to metals.	Keep only in original packaging. Absorb spillage to prevent material damage. Store in a corrosion resistant container with a resistant inner liner.	

Color Reference Solutions acc. to Ph Eur					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma-Aldrich - 72024		Danger	May be corrosive to metals. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer by inhalation. May damage fertility or the unborn child. Toxic to aquatic life with long lasting effects.	Obtain special instructions before use. IF ON SKIN: Wash with plenty of soap and water. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Store in corrosive	

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				resistant container with a resistant inner liner. Keep only in original container. IF exposed or concerned: Get medical advice/ attention. Avoid breathing mist or vapours. If skin irritation or rash occurs: Get medical advice/ attention. Contaminated work clothing must not be allowed out of the workplace. If experiencing respiratory symptoms: Call a POISON CENTER/ doctor. Avoid release to the environment. Wash contaminated clothing before reuse. Wear protective gloves/ protective clothing/ eye protection/ face protection. Absorb spillage to prevent material damage. In case of inadequate ventilation wear respiratory protection. Collect spillage.	

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Color Reference Solutions acc. to Ph Eur					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma-Aldrich - 73183		Danger	May be corrosive to metals. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer by inhalation. May damage fertility or the unborn child. Toxic to aquatic life with long lasting effects.	Obtain special instructions before use. IF ON SKIN: Wash with plenty of soap and water. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. IF exposed or concerned: Get medical advice/ attention. Avoid breathing mist or vapours. If skin irritation or rash occurs: Get medical advice/ attention. Contaminated work clothing must not be allowed out of the workplace. If experiencing respiratory	

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				symptoms: Call a POISON CENTER/ doctor. Avoid release to the environment. Wash contaminated clothing before reuse. Wear protective gloves/ protective clothing/ eye protection/ face protection. Absorb spillage to prevent material damage. In case of inadequate ventilation wear respiratory protection. Collect spillage.	

Color Reference Solutions acc. to Ph Eur					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma-Aldrich - 71984		Danger	May be corrosive to metals. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer by inhalation. May damage fertility or the unborn child. Harmful to aquatic life with long lasting	Obtain special instructions before use. IF ON SKIN: Wash with plenty of soap and water. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. IF INHALED: If breathing is difficult, remove person to fresh air and keep	

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			effects.	comfortable for breathing. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. IF exposed or concerned: Get medical advice/ attention. Avoid breathing mist or vapours. If skin irritation or rash occurs: Get medical advice/ attention. Contaminated work clothing must not be allowed out of the workplace. If experiencing respiratory symptoms: Call a POISON CENTER/ doctor. Avoid release to the environment. Wash contaminated clothing before reuse. Wear protective gloves/ protective clothing/ eye protection/ face protection. Absorb spillage to prevent material damage. In case of inadequate ventilation wear respiratory protection.	

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Color Reference Solutions acc. to Ph Eur					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma-Aldrich - 72429		Danger	May be corrosive to metals. May cause cancer by inhalation. Harmful to aquatic life with long lasting effects.	Obtain special instructions before use. IF exposed or concerned: Get medical advice/ attention. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. Absorb spillage to prevent material damage. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to Ph Eur					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma-Aldrich - 77094		Danger	May be corrosive to metals. May cause cancer by	Obtain special instructions before use. IF exposed or concerned: Get	

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			inhalation. Harmful to aquatic life with long lasting effects.	medical advice/ attention. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. Absorb spillage to prevent material damage. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions BY6					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma-Aldrich - 75916		Danger	May be corrosive to metals. May cause cancer by inhalation.	Obtain special instructions before use. IF exposed or concerned: Get medical advice/ attention. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety	

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				precautions have been read and understood. Absorb spillage to prevent material damage. Store in a corrosion resistant container with a resistant inner liner. Keep only in original packaging. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions BY7					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma-Aldrich - 71983		Warning	May be corrosive to metals.	Keep only in original packaging. Absorb spillage to prevent material damage. Store in a corrosion resistant container with a resistant inner liner.	

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