



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 8.5

Revision Date 20.02.2025

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Color Reference Solutions acc. to USP

Product Number : 87574
Brand : Sigma-Aldrich
REACH No. :

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

Identified uses : Laboratory chemicals, Manufacture of substances
Uses advised against : For R&D use only. Not for pharmaceutical, household or other uses.

1.3

CHEMIKART

1.4 Emergency telephone

Emergency Phone # : 000 800 1007 141 (CHEMTREC)

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.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Corrosive to Metals, (Category 1)	H290: May be corrosive to metals.
Eye irritation, (Category 2)	H319: Causes serious eye irritation.
Carcinogenicity, (Category 1B)	H350: May cause cancer.
Long-term (chronic) aquatic hazard, (Category 3)	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word	Danger
Hazard Statements	
H290	May be corrosive to metals.
H319	Causes serious eye irritation.
H350	May cause cancer.
H412	Harmful to aquatic life with long lasting effects.
Precautionary Statements	
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original packaging.
P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements	none

Reduced Labeling (<= 125 ml)

Pictogram

Signal Word	Danger
Hazard Statements	
H350	May cause cancer.
H412	Harmful to aquatic life with long lasting effects.
Precautionary Statements	
P202	Do not handle until all safety precautions have been read and understood.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements	none

2.3 Other hazards - none

SECTION 3: Composition/information on ingredients

Refer to component SDS

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**7.1 Precautions for safe handling****Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities**Storage conditions**

No metal containers.

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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**14.1 UN number**

ADR/RID: 3316

IMDG: 3316

IATA: 3316

14.2 UN proper shipping name

ADR/RID: CHEMICAL KIT

IMDG: CHEMICAL KIT

IATA: Chemical kit

14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

Tunnel restriction code : (E)

Further information : No data available

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Refer to component SDS

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information**Kit Components:**

Color Reference Sigma-Aldrich 94288

Solutions acc. to USP

Color Reference Sigma-Aldrich 90519

Solutions acc. to USP

Color Reference Sigma-Aldrich 92103

Solutions acc. to USP

Color Reference Sigma-Aldrich 71294

Met. Corr. 1; Carc. 1B; Aquatic Chronic 3; H290, H350, H412

Met. Corr. 1; Carc. 1B; Aquatic Chronic 3; H290, H350, H412

Met. Corr. 1; Carc. 1B; Aquatic Chronic 3; H290, H350, H412

Met. Corr. 1; Carc. 1B; Aquatic

Solutions acc. to USP	Sigma-Aldrich	72618	Chronic 3; H290, H350, H412
Color Reference			Met. Corr. 1; Carc. 1B; Aquatic
Solutions acc. to USP	Sigma-Aldrich	95432	Chronic 3; H290, H350, H412
Color Reference			Met. Corr. 1; Carc. 1B; Aquatic
Solutions acc. to USP	Sigma-Aldrich	95449	Chronic 3; H290, H350, H412
Color Reference			Met. Corr. 1; Carc. 1B; Aquatic
Solutions acc. to USP	Sigma-Aldrich	73188	Chronic 3; H290, H350, H412
Color Reference			Met. Corr. 1; Carc. 1B; Aquatic
Solutions acc. to USP	Sigma-Aldrich	95458	Chronic 3; H290, H350, H412
Color Reference			Met. Corr. 1; Eye Irrit. 2; Carc.
Solutions acc. to USP			1B; Aquatic Chronic 3; H290, H319, H350, H412
Color Reference	Sigma-Aldrich	80225	Met. Corr. 1; Eye Irrit. 2; Carc.
Solutions acc. to USP			1B; Aquatic Chronic 3; H290, H319, H350, H412
Color Reference	Sigma-Aldrich	72428	Met. Corr. 1; Eye Irrit. 2; Carc.
Solutions acc. to USP			1B; Aquatic Chronic 3; H290, H319, H350, H412
Color Reference	Sigma-Aldrich	92191	Met. Corr. 1; Eye Irrit. 2; Carc.
Solutions acc. to USP			1B; Aquatic Chronic 3; H290, H319, H350, H412
Color Reference	Sigma-Aldrich	94759	Met. Corr. 1; Eye Irrit. 2; Carc.
Solutions acc. to USP			1B; Aquatic Chronic 3; H290, H319, H350, H412
Color Reference	Sigma-Aldrich	76019	Met. Corr. 1; Eye Irrit. 2; H290, H319
Solutions acc. to USP			Met. Corr. 1; Eye Irrit. 2; Carc.
Color Reference	Sigma-Aldrich	80299	1B; Aquatic Chronic 3; H290, H319, H350, H412
Solutions acc. to USP			Met. Corr. 1; Carc. 1B; Aquatic
Color Reference	Sigma-Aldrich	81251	Chronic 3; H290, H350, H412
Solutions acc. to USP			Met. Corr. 1; Carc. 1B; Aquatic
Color Reference	Sigma-Aldrich	76883	Chronic 3; H290, H350, H412
Solutions acc. to USP			Met. Corr. 1; Carc. 1B; Aquatic
Color Reference	Sigma-Aldrich	80294	Chronic 3; H290, H350, H412
Solutions acc. to USP			Met. Corr. 1; Carc. 1B; Aquatic
Color Reference	Sigma-Aldrich	92512	Chronic 3; H290, H350, H412
Solutions acc. to USP			Met. Corr. 1; Carc. 1B; Aquatic
Color Reference	Sigma-Aldrich	94116	Chronic 3; H290, H350, H412
Solutions acc. to USP			Met. Corr. 1; Carc. 1B; Aquatic
Hydrochloric acid	Sigma-Aldrich	16233	Chronic 3; H290, H350, H412
			Met. Corr. 1; H290

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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 Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; 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

Classification of the mixture

Met. Corr.1	H290
Eye Irrit.2	H319
Carc.1B	H350
Aquatic Chronic3	H412

Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method

Further information

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 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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CHEMIKART

Kit Components:

Color Reference Solutions acc. to USP					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 94288		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to USP					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 90519		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective	

				gloves/ protective clothing/ eye protection/ face protection.	
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Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 92103		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 71294		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/	

				protective clothing/ eye protection/ face protection.	
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Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 72618		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 95432		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective	

				clothing/ eye protection/ face protection.	
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Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 95449		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 73188		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye	

				protection/ face protection.	
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Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 95458		Danger	May be corrosive to metals. Causes serious eye irritation. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep only in original packaging. IF exposed or concerned: Get medical advice/ attention. Wash skin thoroughly after handling. Avoid release to the environment.	

Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 80225		Danger	May be corrosive to metals. Causes serious eye irritation. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep only in original packaging. IF exposed or	

				concerned: Get medical advice/attention. Wash skin thoroughly after handling. Avoid release to the environment.	
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Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 72428		Danger	May be corrosive to metals. Causes serious eye irritation. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep only in original packaging. IF exposed or concerned: Get medical advice/attention. Wash skin thoroughly after handling. Avoid release to the environment.	

Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 92191		Danger	May be corrosive to metals. Causes serious eye irritation. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if	

				present and easy to do. Continue rinsing. Keep only in original packaging. IF exposed or concerned: Get medical advice/attention. Wash skin thoroughly after handling. Avoid release to the environment.	
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Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 94759		Danger	May be corrosive to metals. Causes serious eye irritation. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep only in original packaging. IF exposed or concerned: Get medical advice/attention. Wash skin thoroughly after handling. Avoid release to the environment.	

Color Reference Solutions acc. to USP

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 76019		Warning	May be corrosive to metals. Causes serious	Keep only in original packaging. IF IN EYES: Rinse	

			eye irritation.	cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protection. Absorb spillage to prevent material damage.	
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Color Reference Solutions acc. to USP					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 80299		Danger	May be corrosive to metals. Causes serious eye irritation. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep only in original packaging. IF exposed or concerned: Get medical advice/ attention. Wash skin thoroughly after handling. Avoid release to the environment.	

Color Reference Solutions acc. to USP					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 81251		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to USP					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 76883		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to USP					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 80294		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to USP					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 92512		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Color Reference Solutions acc. to USP					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 94116		Danger	May be corrosive to metals. May cause cancer. Harmful to aquatic life with long lasting effects.	Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Keep only in original packaging. Absorb spillage to prevent material damage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	

Hydrochloric acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Sigma-Aldrich - 16233		Warning	May be corrosive to metals.	Keep only in original packaging. Absorb spillage to prevent material damage.	