

# • SAFETY DATA SHEET

Version 6.11  
Revision Date 10/14/2025  
Print Date 10/15/2025

## SECTION 1. IDENTIFICATION

### 1.1 Product identifiers

Product name : Starch (GO/P) Assay Kit

Product Number : STA20

Brand : Sigma

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

Identified uses : Laboratory chemicals, Synthesis of substances

### 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765

Fax : +1 800 325-5052

### 1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

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

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1

Serious eye damage : Category 1

Respiratory sensitisation : Category 1

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Carcinogenicity : Category 1B

**Other hazards**

None known.

**GHS label elements**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H350 May cause cancer.

Supplemental Hazard Statements : Corrosive to the respiratory tract.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing mist or vapours.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P285 In case of inadequate ventilation wear respiratory protection.  
**Response:**  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. Immediately call a POISON CENTER/ doctor.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.  
P363 Wash contaminated clothing before reuse.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

**Disposal:**

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

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Refer to component SDS

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**SECTION 4. FIRST AID MEASURES**

Refer to component SDS

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**SECTION 5. FIREFIGHTING MEASURES**

Refer to component SDS

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Refer to component SDS

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**SECTION 7. HANDLING AND STORAGE**

For precautions see section 2.2.

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

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 : 6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

Recommended storage temperature : 36 - 46 °F / 2 - 8 °C

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Refer to component SDS

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Refer to component SDS

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**SECTION 10. STABILITY AND REACTIVITY**

Refer to component SDS

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**SECTION 11. TOXICOLOGICAL INFORMATION**

Refer to component SDS

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**SECTION 12. ECOLOGICAL INFORMATION**

Refer to component SDS

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**SECTION 13. DISPOSAL CONSIDERATIONS**

Refer to component SDS

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

UN/ID No. : UN 3316  
Proper shipping name : Chemical kit  
Class : 9  
Packing group : II  
Labels : Class 9 - Miscellaneous dangerous substances and articles  
Packing instruction (cargo : 960  
aircraft)  
Packing instruction : 960  
(passenger aircraft)

**IMDG-Code**

UN number : UN 3316  
Proper shipping name : CHEMICAL KIT  
  
Class : 9  
Packing group : II  
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 Road

UN/ID/NA number : UN 3316  
Proper shipping name : Chemical kits

Class : 9  
Packing group : II  
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.

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## SECTION 15. REGULATORY INFORMATION

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

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## SECTION 16. OTHER INFORMATION

#### Kit Components:

Glucose oxidase/oxidase/oxidase reagent	Sigma	G3660
Starch assay reagent	Sigma-Aldrich	S9144
Starch, from wheat	Sigma-Aldrich	S1520
o-Dianisidine dihydrochloride	Sigma-Aldrich	D2679
α-Amylase, from Bacillus licheniformis	Sigma-Aldrich	A4582
D-(+)-Glucose solution	Sigma-Aldrich	G3285
Starch, from corn	Sigma-Aldrich	S5296

#### 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;

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada

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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 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](http://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 : 10/14/2025

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada

The logo for MilliporeSigma, featuring the word "MILLIPORE" in a bold, green, sans-serif font above the word "SIGMA" in a similar font, with the "S" and "I" in "SIGMA" being significantly larger and overlapping the "M" and "P" in "MILLIPORE".


**Kit Components:**

<b>Glucose oxidase/peroxidase reagent</b>					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary statements	Supplemental information
Sigma - G3660		Danger	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Avoid breathing dust. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Dispose of contents/ container to an approved waste disposal plant. In case of inadequate ventilation wear respiratory protection. If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.	

<b>Starch assay reagent</b>					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary statements	Supplemental information
Sigma-Aldrich - S9144		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust. IF ON SKIN: Wash with plenty of water. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/ container to an approved waste disposal plant. Wash skin	

				<p>thoroughly after handling. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Store locked up. Use only outdoors or in a well-ventilated area. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear protective gloves/ eye protection/ face protection. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention.</p>	
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<b>Starch, from wheat</b>					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary statements	Supplemental information
Sigma-Aldrich - S1520		Warning	May form combustible dust concentrations in air.		


<b>o-Dianisidine dihydrochloride</b>					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary statements	Supplemental information
Sigma-Aldrich - D2679		Danger	Harmful if swallowed. Causes severe skin burns and eye damage. May cause cancer.	Obtain special instructions before use. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. 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 SWALLOWED: Rinse mouth. Do NOT induce vomiting. Do not breathe dust. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash skin thoroughly after handling. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. Do not eat, drink or smoke when using this product. IF IN EYES: Rinse	

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				cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF exposed or concerned: Get medical advice/ attention. Wash contaminated clothing before reuse.	
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*α-Amylase, from Bacillus licheniformis*

Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary statements	Supplemental information
Sigma-Aldrich - A4582		Danger	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Avoid breathing dust. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Dispose of contents/ container to an approved waste disposal plant. In case of inadequate ventilation wear respiratory protection. If experiencing respiratory symptoms: Call a POISON	

				CENTER/ doctor.	
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D-(+)-Glucose solution					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary statements	Supplemental information
Sigma-Aldrich - G3285					No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

Starch, from corn					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary statements	Supplemental information
Sigma-Aldrich - S5296		Warning	May form combustible dust concentrations in air.		