

Material Safety Data Sheet

SIEMENS

Stratus® CS Analyzer DDMR CalPak

MSDS no.

DECS0004

1 . Product and company identification

Product name	: Stratus® CS Analyzer DDMR CalPak
Synonym	: Stratus® CS STAT Fluorometric Analyzer DDMR CalPak D-Dimer Calibrator
Code	: CDDMR-C, 10445076
Material uses	: Not available.
Product type	: Liquid.
Manufactured/supplied	: Siemens Healthcare Diagnostics Inc. 1717 Deerfield Road Deerfield, IL 60015-0778 1-877-229-3711
In case of emergency	: (800) 424-9300 (CHEMTREC)

2 . Hazards identification

Physical state	: Liquid.
OSHA/HCS status	: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview	: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing. WARNING: Because no test method can offer complete assurance that human blood products, or other potentially infectious material, do not contain HIV, hepatitis B virus, hepatitis C virus, or other infectious agents, this material should be handled as though it were potentially infectious.
Routes of entry	: Dermal contact. Eye contact. Inhalation.
Potential acute health effects	
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.
Eyes	: No known significant effects or critical hazards.
Potential chronic health effects	
Chronic effects	: 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.
Target organs	: None identified.
Over-exposure signs/symptoms	
Inhalation	: No specific data.
Ingestion	: No specific data.
Skin	: No specific data.
Eyes	: No specific data.

2 . Hazards identification

See toxicological information (Section 11)

3 . Composition/information on ingredients

United States

<u>Name</u>	<u>CAS number</u>	<u>%</u>
sodium azide	26628-22-8	0.04
streptomycin sulphate	3810-74-0	0.02

Canada

<u>Name</u>	<u>CAS number</u>	<u>%</u>
methanol	67-56-1	0.32

There are no additional 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.

4 . First aid measures

Eye contact	: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
Skin contact	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
Inhalation	: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

5 . Fire-fighting measures

Flammability of the product : In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

In case of fire, use water spray (fog), foam or dry chemical.

Not suitable

: None known.

Special exposure hazards

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products

: Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides

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.

6 . Accidental release measures

Personal precautions	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

Handling	: Put on appropriate personal protective equipment (see Section 8). 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. Remove contaminated clothing and protective equipment before entering eating areas.
Storage	: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8 . Exposure controls/personal protection

<u>Product name</u>	<u>Exposure limits</u>
<u>United States</u>	
sodium azide	<p>ACGIH TLV (United States, 3/2012). Notes: as hydrazoic acid vapor C: 0.11 ppm, (as Hydrazoic acid vapor) Form: as Hydrazoic acid vapor</p> <p>ACGIH TLV (United States, 3/2012). C: 0.29 mg/m³, (as Sodium azide) Form: as Sodium azide</p> <p>NIOSH REL (United States, 1/2013). Absorbed through skin. Notes: NAN3 CEIL: 0.3 mg/m³, (NAN3)</p> <p>NIOSH REL (United States, 1/2013). Absorbed through skin. Notes: as HN3 CEIL: 0.1 ppm, (as HN3)</p> <p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as HN3 CEIL: 0.1 ppm, (as HN3)</p> <p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as NaN3 CEIL: 0.3 mg/m³, (as NaN3)</p>
<u>Canada</u>	
methanol	<p>CA Alberta Provincial (Canada, 4/2009). Absorbed through skin. 8 hrs OEL: 262 mg/m³ 8 hours. 8 hrs OEL: 200 ppm 8 hours. 15 min OEL: 250 ppm 15 minutes. 15 min OEL: 328 mg/m³ 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 4/2012). Absorbed through skin. TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2013). Absorbed through skin. TWA: 200 ppm 8 hours.</p>

8 . Exposure controls/personal protection

TWA: 262 mg/m³ 8 hours.
 STEL: 250 ppm 15 minutes.
 STEL: 328 mg/m³ 15 minutes.

CA Quebec Provincial (Canada, 12/2012). Absorbed through skin.

TWAEV: 200 ppm 8 hours.
 TWAEV: 262 mg/m³ 8 hours.
 STEV: 250 ppm 15 minutes.
 STEV: 328 mg/m³ 15 minutes.

Consult local authorities for acceptable exposure limits.

Sodium Azide, in the quantity present and as this product is normally used, is not likely to have adverse human health effects.

Recommended monitoring procedures	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
Engineering measures	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<u>Personal protection</u>	
Respiratory	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eyes	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state	: Liquid.
Flash point	: [Product does not sustain combustion.]
pH	: 7
Relative density	: 1.025
VOC	: 0.42 % (w/w)
Solubility	: Easily soluble in the following materials: cold water.

10 . Stability and reactivity

Stability	: The product is stable.
Conditions to avoid	: No specific data.
Materials to avoid	: No specific data. Not available.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions of reactivity	
Flammability	: Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and oxidizing materials.
	:

11 . Toxicological information

United States

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
sodium azide	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50	Rat	47.5 mg/kg	-
	Intratracheal			
	LD50	Rat	47500 µg/kg	-
	Intratracheal			
	LD50 Oral	Rat	27 mg/kg	-
	LD50	Rat	45 mg/kg	-
	Subcutaneous			
	LD50	Rat	45100 µg/kg	-
	Subcutaneous			
	LDLo	Rat	30 mg/kg	-
streptomycin sulphate	Intraperitoneal			
	LDLo	Rat	3 mg/kg	-
	Intraperitoneal			
	LD50	Rat	1219 mg/kg	-
	Intraperitoneal			
	LD50 Oral	Rat	430 mg/kg	-
	LD50	Rat	600 mg/kg	-
streptomycin sulphate	Subcutaneous			
	TDLo Intrapinal	Rat	22.72 µg/kg	-

Chronic toxicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
sodium azide	A4	-	-	None.	-	-
streptomycin sulphate	-	-	-	None.	-	-

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

11 . Toxicological information

Not available.

Canada

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50	Rat	7529 mg/kg	-
	Intraperitoneal			
	LD50 Intravenous	Rat	2131 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	TDLo	Rat	3490 mg/kg	-
	Intraperitoneal			
	TDLo	Rat	3000 mg/kg	-
	Intraperitoneal			
	TDLo Oral	Rat	8 g/kg	-
	TDLo Oral	Rat	3 g/kg	-
	TDLo Oral	Rat	3500 mg/kg	-
	TDLo	Rat	6825 mg/kg	-
	Subcutaneous			
	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	8 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours

Chronic toxicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
sodium azide	A4	-	-	None.	-	-
streptomycin sulphate	-	-	-	None.	-	-

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

United States

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
sodium azide	-	Acute EC50 6.4 to 8.9 mg/l Fresh water	Crustaceans - Water flea - Simocephalus serrulatus - Larvae - 1 instar	48 hours
	-	Acute EC50 4.2 to 6.2 mg/l Fresh water	Daphnia - Water flea - Daphnia pulex - Larvae -	48 hours

12 . Ecological information

	-	Acute EC50 0. 348 mg/l Fresh water	1 instar Algae - Green algae - <i>Pseudokirchneriella subcapitata</i>	96 hours
	-	Acute EC50 9200 µg/l Marine water	Algae - Giant kelp - <i>Macrocystis pyrifera</i>	96 hours
	-	Acute LC50 0.8 mg/l Fresh water	Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i> - 1.4 g	96 hours
	-	Acute LC50 0.68 mg/l Fresh water	Fish - Bluegill - <i>Lepomis macrochirus</i> - 0. 6 g	96 hours
	-	Acute LC50 9000 µg/l Fresh water	Crustaceans - Scud - <i>Gammarus lacustris</i> - 2 months	48 hours
	-	Acute LC50 3920 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i> - 8.57 cm - 7.84 g	96 hours
	-	Acute LC50 2840 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i> - 7.87 cm - 6.07 g	96 hours
	-	Acute LC50 2750 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i> - 7.32 cm - 4.76 g	96 hours
	-	Chronic NOEC 5600 µg/l Marine water	Algae - Giant kelp - <i>Macrocystis pyrifera</i>	96 hours
streptomycin sulphate	-	Acute EC50 487 mg/l Fresh water	Daphnia - Water flea - Daphnia <i>magna</i> - Neonate - <24 hours	48 hours
	-	Acute EC50 0. 133 mg/l Fresh water	Algae - Green algae - <i>Pseudokirchneriella subcapitata</i> - Exponential growth phase	3 days
	-	Acute EC50 650 ppm Fresh water	Daphnia - Water flea - Daphnia <i>magna</i> - Larvae - 1 instar	48 hours
	-	Acute EC50	Daphnia - Water	48 hours

12 . Ecological information

-	363000 µg/l	flea - Daphnia magna	
-	Acute LC50 >180 ppm Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
-	Chronic NOEC 32 mg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	21 days

Biodegradability

Not available.

Canada

Aquatic ecotoxicity

Product/ingredient name methanol	Test	Result	Species	Exposure
	-	Acute EC50 22200 to 23400 mg/l Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours
	-	Acute EC50 16. 912 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Acute EC50 20000 ppm Fresh water	Algae - Chrysophyte - Pavlova lutheri	96 hours
	-	Acute EC50 10000 ppm Fresh water	Algae - Dinoflagellate - Prorocentrum minimum	96 hours
	-	Acute EC50 24500000 to 29350000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Larvae - <24 hours	48 hours
	-	Acute EC50 13000000 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0. 813 g	96 hours
	-	Acute EC50 12700000 µg/l Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	-	Acute EC50 10000000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - 6 to 24 hours	48 hours
	-	Acute LC50 3289 to 4395 mg/l	Daphnia - Water flea - Daphnia	48 hours

12 . Ecological information

-	Fresh water	magna - Neonate - <24 hours
-	Acute LC50 1000 mg/l Fresh water	Fish - Bluegill - 96 hours Lepomis macrochirus - 6 months - 40 mm - 0.81 g
-	Acute LC50 290 mg/l Fresh water	Fish - Zebra danio - Danio rerio - Egg - 12 stage
-	Acute LC50 100 mg/l Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g
-	Acute LC50 2500000 µg/l Marine water	Crustaceans - 48 hours Common shrimp, sand shrimp - Crangon crangon - Adult
-	Chronic NOEC 9. 96 mg/l Marine water	Algae - Green algae - Ulva pertusa
-	Chronic NOEC 1400 ppm Fresh water	Algae - Diatom - 96 hours Skeletonema costatum
-	Chronic NOEC 410 ppm Fresh water	Algae - Dinoflagellate - Prorocentrum minimum
-	Chronic NOEC 71 ppm Fresh water	Algae - Algae - 96 hours Heterosigma akashiwo
-	Chronic NOEC 24 ppm Fresh water	Algae - Euglenoid - 96 hours Eutreptiella sp.

Biodegradability

Not available.

13 . Disposal considerations

Waste disposal

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

13 . Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

International transport regulations

DOT Classification

UN number	Not regulated.
Proper shipping name	-
Classes	-
PG*	-
Label	
Additional information	Not applicable.

TDG Classification

UN number	Not regulated.
Proper shipping name	-
Classes	-
PG*	-
Label	
Additional information	-

Mexico

Classification

UN number	Not regulated.
Proper shipping name	-
Classes	-
PG*	-
Label	
Additional information	-

IMDG Class

UN number	Not regulated.
Proper shipping name	-
Classes	-
PG*	-
Label	

14 . Transport information

Additional information

IATA-DGR Class

UN number	-	Not regulated.
Proper shipping name	-	
Classes	-	
PG*	-	
Label	-	
Additional information	-	

PG* : Packing group

15 . Regulatory information

United States

HCS Classification	: Not regulated.
U.S. Federal regulations	: <ul style="list-style-type: none"> TSCA 8(a) CDR Exempt/Partial exemption: Not determined United States inventory (TSCA 8b): Not determined. SARA 302/304: sodium azide SARA 311/312 Hazards identification: Not regulated. Clean Air Act (CAA) 112 accidental release prevention: No products were found.
State regulations	: <ul style="list-style-type: none"> Connecticut Carcinogen Reporting: None of the components are listed. Connecticut Hazardous Material Survey: None of the components are listed. Florida substances: None of the components are listed. Illinois Chemical Safety Act: None of the components are listed. Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed. Louisiana Reporting: None of the components are listed. Louisiana Spill: None of the components are listed. Massachusetts Spill: None of the components are listed. Massachusetts Substances: None of the components are listed. Michigan Critical Material: None of the components are listed. Minnesota Hazardous Substances: None of the components are listed. New Jersey Hazardous Substances: None of the components are listed. New Jersey Spill: None of the components are listed. New Jersey Toxic Catastrophe Prevention Act: None of the components are listed. New York Acutely Hazardous Substances: None of the components are listed. New York Toxic Chemical Release Reporting: None of the components are listed. Pennsylvania RTK Hazardous Substances: None of the components are listed. Rhode Island Hazardous Substances: None of the components are listed.

California Prop. 65

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage level</u>
methanol	No.	Yes.	No.	No.
streptomycin sulphate	No.	Yes.	No.	No.

15 . Regulatory information

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

Use only for medical diagnostic (R&D) purposes

Canada

WHMIS (Canada) : Not a WHMIS controlled material.
Canadian lists : **CEPA Toxic substances:** None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: None of the components are listed.
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

Canada inventory : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

16 . Other information

EU regulations

Risk phrases : This product is not classified as dangerous according to EU legislation.

International regulations

International lists : **Australia inventory (AICS):** Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan inventory (CSNN): Not determined.

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Version : 5

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.