SAFETY DATA SHEET



INNOVANCE® Heparin

Section 1. Identification

Product identifier : INNOVANCE® Heparin

Product code : OPOA03, 10873916; OPOA05, 10873930

Product type : Liquid.

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

Not applicable.

Manufactured/supplied : Sysmex Americas

> 577 Aptakisic RD Lincolnshire, IL 60069

Company Phone Number: (224) 543-9500

Emergency telephone

ChemTel Inc. number

1-800-255-3924 (North America) 1-813-248-0585 (International)

Section 2. Hazards identification

OSHA/HCS status : INNOVANCE® Heparin Reagent While this material is not considered

hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

INNOVANCE® Heparin Substrate While this material is not considered

hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for

employees and other users of this product.

Classification of the substance or mixture

: Not classified.

Additional information : Not available.

Not available.

GHS label elements

Response

Signal word : INNOVANCE® Heparin Reagent No signal word.

INNOVANCE® Heparin Substrate No signal word.

Hazard statements : INNOVANCE® Heparin Reagent No known significant effects or critical

hazards.

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards.

Precautionary statements

Prevention : INNOVANCE® Heparin Reagent Not applicable.

INNOVANCE® Heparin Substrate Not applicable. Not applicable. : INNOVANCE® Heparin Reagent

INNOVANCE® Heparin Substrate Not applicable. Storage : INNOVANCE® Heparin Reagent Not applicable.

INNOVANCE® Heparin Substrate Not applicable.

INNOVANCE® Heparin

Supplemental label

elements

Skin contact

Section 2. Hazards identification

Disposal : INNOVANCE® Heparin Reagent Not applicable.

INNOVANCE® Heparin Substrate

INNOVANCE® Heparin Reagent
INNOVANCE® Heparin Substrate

Not applicable.

None known.

None known.

 Hazards not otherwise classified
 : INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate
 None known.

Section 3. Composition/information on ingredients

Substance/mixture : INNOVANCE® Heparin Reagent Mixture INNOVANCE® Heparin Substrate Mixture

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : INNOVANCE® Heparin Reagent Immediately flush eyes with plenty of

water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if

irritation occurs.

INNOVANCE® Heparin Substrate Immediately flush eyes with plenty of

water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if

irritation occurs.

Inhalation : INNOVANCE® Heparin Reagent Remove victim to fresh air and keep at

INNOVANCE® Heparin Substrate

: INNOVANCE® Heparin Reagent

rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if

symptoms occur.

INNOVANCE® Heparin Substrate Flush contaminated skin with plenty of

water. Remove contaminated clothing and shoes. Get medical attention if

symptoms occur.

Ingestion : INNOVANCE® Heparin Reagent Wash out mouth with water. If material

has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if

symptoms occur.

INNOVANCE® Heparin Substrate Wash out mouth with water. If material has been swallowed and the exposed

person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if

symptoms occur.

Most important symptoms/effects, acute and delayed Potential acute health effects

INNOVANCE® Heparin

Section 4. First aid measures

Eye contact : INNOVANCE® Heparin Reagent No known significant effects or critical

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards.

Inhalation : INNOVANCE® Heparin Reagent No known significant effects or critical

hazards.

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards

Skin contact : INNOVANCE® Heparin Reagent No known significant effects or critical

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards.

Ingestion : INNOVANCE® Heparin Reagent No known significant effects or critical

hazards.

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards.

Over-exposure signs/symptoms

Inhalation

Ingestion

Eye contact : INNOVANCE® Heparin Reagent No specific data.

INNOVANCE® Heparin Substrate No specific data. : INNOVANCE® Heparin Reagent No specific data. INNOVANCE® Heparin Substrate No specific data.

Skin contact : INNOVANCE® Heparin Reagent No specific data.

> INNOVANCE® Heparin Substrate No specific data. : INNOVANCE® Heparin Reagent No specific data. INNOVANCE® Heparin Substrate No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

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

Unsuitable extinguishing

media

: None known.

Specific hazards arising from the chemical

Hazardous thermal

decomposition products

: No specific data.

Special protective actions

for fire-fighters

: 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

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

training.

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: 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.

For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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).

Methods and materials for containment and cleaning up

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.

Large spill

: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

: 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. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, : including any incompatibilities

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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

Individual protection measures

Section 8. Exposure controls/personal protection

: Wash hands, forearms and face thoroughly after handling chemical products, before Hygiene measures

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.

: Safety eyewear complying with an approved standard should be used when a risk Eye/face protection

assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases 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 protection

Hand protection : 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.

Body protection : 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.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected

based on the task being performed and the risks involved and should be approved by a

specialist before handling this product.

Based on the hazard and potential for exposure, select a respirator that meets the Respiratory protection

appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important

aspects of use.

Section 9. Physical and chemical properties

: INNOVANCE® Heparin Reagent Physical state Liquid.

INNOVANCE® Heparin Substrate Liquid. Color

White to yellowish. : INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate White to yellowish.

Odor : INNOVANCE® Heparin Reagent Odorless.

INNOVANCE® Heparin Substrate Odorless.

pН : INNOVANCE® Heparin Reagent 8

INNOVANCE® Heparin Substrate 5

Flash point : INNOVANCE® Heparin Reagent [Product does not sustain combustion.] INNOVANCE® Heparin Substrate [Product does not sustain combustion.]

: INNOVANCE® Heparin Reagent Not relevant/applicable due to nature of

Flammability (solid, gas) the product.

INNOVANCE® Heparin Substrate Not relevant/applicable due to nature of

the product.

: INNOVANCE® Heparin Reagent 1.006 Relative density

INNOVANCE® Heparin Substrate 1.002

Solubility(ies)

Auto-ignition temperature

Not available.

Solubility in water : INNOVANCE® Heparin Reagent Not available. INNOVANCE® Heparin Substrate Not available.

Partition coefficient: n-Not relevant/applicable due to nature of : INNOVANCE® Heparin Reagent

octanol/water

the product Not relevant/applicable due to nature of

INNOVANCE® Heparin Substrate

the product.

: INNOVANCE® Heparin Reagent Not available. INNOVANCE® Heparin Substrate Not available.

Viscosity : INNOVANCE® Heparin Reagent Not relevant/applicable due to nature of

the product.

INNOVANCE® Heparin Substrate Not relevant/applicable due to nature of

the product.

Aerosol product

: INNOVANCE® Heparin Reagent Not applicable. Type of aerosol

INNOVANCE® Heparin Substrate Not applicable.

Section 10. Stability and reactivity

: INNOVANCE® Heparin Reagent Reactivity No specific test data related to reactivity

available for this product or its ingredients. INNOVANCE® Heparin Substrate No specific test data related to reactivity

available for this product or its ingredients.

: INNOVANCE® Heparin Reagent **Chemical stability** The product is stable.

INNOVANCE® Heparin Substrate The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : INNOVANCE® Heparin Reagent No specific data.

INNOVANCE® Heparin Substrate No specific data.

Incompatible materials : INNOVANCE® Heparin Reagent No specific data.

INNOVANCE® Heparin Substrate No specific data.

Hazardous decomposition

products

: INNOVANCE® Heparin Reagent Under normal conditions of storage and

use, hazardous decomposition products

should not be produced.

Not available

INNOVANCE® Heparin Substrate Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Not available. Conclusion/Summary : INNOVANCE® Heparin Reagent Not available.

INNOVANCE® Heparin Substrate

Irritation/Corrosion

Not available.

Conclusion/Summary

Skin : INNOVANCE® Heparin Reagent Not available.

INNOVANCE® Heparin Substrate

: INNOVANCE® Heparin Reagent Not available. Not available. INNOVANCE® Heparin Substrate

Respiratory : INNOVANCE® Heparin Reagent Not available. INNOVANCE® Heparin Substrate Not available.

Sensitization

Eyes

Not available.

Conclusion/Summary

Not available. Skin : INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate Not available.

: INNOVANCE® Heparin Reagent Respiratory Not available. INNOVANCE® Heparin Substrate Not available.

Mutagenicity

Not available.

Not available. Conclusion/Summary : INNOVANCE® Heparin Reagent Not available.

INNOVANCE® Heparin Substrate

Carcinogenicity

Not available.

Conclusion/Summary : INNOVANCE® Heparin Reagent Not available.

INNOVANCE® Heparin Substrate Not available.

Reproductive toxicity

Section 11. Toxicological information

Not available.

Conclusion/Summary : INNOVANCE® Heparin Reagent

Not available. INNOVANCE® Heparin Substrate Not available.

Teratogenicity

Not available.

Conclusion/Summary : INNOVANCE® Heparin Reagent

INNOVANCE® Heparin Substrate Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Not available. : INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate Not available.

Potential acute health effects

Eye contact : INNOVANCE® Heparin Reagent No known significant effects or critical

hazards.

Not available

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards.

Inhalation : INNOVANCE® Heparin Reagent No known significant effects or critical

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards.

Skin contact : INNOVANCE® Heparin Reagent No known significant effects or critical

hazards.

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards.

Ingestion : INNOVANCE® Heparin Reagent No known significant effects or critical

hazards.

INNOVANCE® Heparin Substrate No known significant effects or critical

hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eve contact : INNOVANCE® Heparin Reagent No specific data.

INNOVANCE® Heparin Substrate No specific data. : INNOVANCE® Heparin Reagent No specific data.

Inhalation INNOVANCE® Heparin Substrate No specific data.

> : INNOVANCE® Heparin Reagent No specific data. INNOVANCE® Heparin Substrate No specific data.

: INNOVANCE® Heparin Reagent Ingestion No specific data.

INNOVANCE® Heparin Substrate No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Skin contact

Potential immediate : INNOVANCE® Heparin Reagent Not available.

effects INNOVANCE® Heparin Substrate Not available. : INNOVANCE® Heparin Reagent Not available. Potential delayed effects INNOVANCE® Heparin Substrate Not available

Long term exposure

Not available. Potential immediate : INNOVANCE® Heparin Reagent Not available. effects INNOVANCE® Heparin Substrate

Not available. Potential delayed effects : INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate Not available.

Potential chronic health effects

Date of issue/Date of revision : 3/19/2024 : No previous validation Version : 1 7/11 Date of previous issue

Section 11. Toxicological information

Not available.

Conclusion/Summary: Not available. INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

N/A

Interactive effects : INNOVANCE® Heparin Reagent Not available.

INNOVANCE® Heparin Substrate Not available.

Other information : INNOVANCE® Heparin Reagent Not available.

INNOVANCE® Heparin Substrate Not available.

Section 12. Ecological information

Toxicity

Not available.

Conclusion/Summary : INNOVANCE® Heparin Reagent Not available.

INNOVANCE® Heparin Substrate Not available.

Persistence and degradability

Conclusion/Summary : INNOVANCE® Heparin Reagent Not available.

INNOVANCE® Heparin Substrate Not available.

Bioaccumulative potential

Not available.

Mobility in soil

 Soil/water partition coefficient (Koc)
 : INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate
 Not available. Not available.

 Mobility
 : INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate
 Not available. Not available. Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

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.

Additional

Section 14. Transport information

DOT Classification

UN number INNOVANCE® Heparin Reagent Not regulated. INNOVANCE® Heparin Substrate Not regulated.

INNOVANCE® Heparin Reagent **UN proper** INNOVANCE® Heparin Substrate shipping name

Transport INNOVANCE® Heparin Reagent hazard class(es) INNOVANCE® Heparin Substrate

Packing group INNOVANCE® Heparin Reagent

INNOVANCE® Heparin Substrate

Environmental INNOVANCE® Heparin Reagent No. INNOVANCE® Heparin Substrate No. hazards

INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate information

TDG Classification

UN number INNOVANCE® Heparin Reagent Not regulated. INNOVANCE® Heparin Substrate Not regulated.

UN proper INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate shipping name

Transport INNOVANCE® Heparin Reagent hazard class(es) INNOVANCE® Heparin Substrate

Packing group INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate

Environmental INNOVANCE® Heparin Reagent

No. INNOVANCE® Heparin Substrate hazards No. INNOVANCE® Heparin Reagent Additional

information INNOVANCE® Heparin Substrate

ADR/RID

UN number INNOVANCE® Heparin Reagent Not regulated. INNOVANCE® Heparin Substrate Not regulated.

UN proper INNOVANCE® Heparin Reagent shipping name INNOVANCE® Heparin Substrate

Transport INNOVANCE® Heparin Reagent hazard class(es) INNOVANCE® Heparin Substrate

Packing group INNOVANCE® Heparin Reagent

INNOVANCE® Heparin Substrate

Environmental INNOVANCE® Heparin Reagent No. hazards INNOVANCE® Heparin Substrate No.

Additional INNOVANCE® Heparin Reagent INNOVANCE® Heparin Substrate information

IMDG

Section 14. Transport information

UN number INNOVANCE® Heparin Reagent Not regulated. INNOVANCE® Heparin Substrate Not regulated.

UN proper INNOVANCE® Heparin Reagent - shipping name INNOVANCE® Heparin Substrate -

Transport INNOVANCE® Heparin Reagent - hazard class(es) INNOVANCE® Heparin Substrate -

Packing group INNOVANCE® Heparin Reagent - INNOVANCE® Heparin Substrate -

Environmental INNOVANCE® Heparin Reagent No. INNOVANCE® Heparin Substrate No.

Additional INNOVANCE® Heparin Reagent - INNOVANCE® Heparin Substrate -

IATA

UN number INNOVANCE® Heparin Reagent Not regulated. INNOVANCE® Heparin Substrate Not regulated.

UN proper INNOVANCE® Heparin Substrate Not regulated.

UN proper INNOVANCE® Heparin Reagent shipping name INNOVANCE® Heparin Substrate -

Transport INNOVANCE® Heparin Reagent - hazard class(es) INNOVANCE® Heparin Substrate -

Packing group INNOVANCE® Heparin Reagent -

INNOVANCE® Heparin Substrate -

Environmental
hazardsINNOVANCE® Heparin Reagent
INNOVANCE® Heparin SubstrateNo.

Additional INNOVANCE® Heparin Reagent information INNOVANCE® Heparin Substrate -

Special precautions for user : INNOVANCE® Heparin Reagent

Transport within user's premises:

always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or

spillage.

INNOVANCE® Heparin Substrate

Transport within user's premises:

always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or

spillage.

Transport in bulk according: Not applicable. **to IMO instruments**

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112

(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602

: Not listed

: Not listed

Class I Substances

Clean Air Act Section 602 Class II Substances : Not listed

Class II Substances

DEA List I Chemicals

: Not listed

(Precursor Chemicals)

DEA List II Chemicals (Essential Chemicals)

: Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

No products were found.

State regulations

Massachusetts: None of the components are listed.New York: None of the components are listed.New Jersey: None of the components are listed.Pennsylvania: None of the components are listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Section 16. Other information

History

Date of issue/Date of : 3

: 3/19/2024

revision

Version : 1

Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations N/A = Not available SGG = Segregation Group

▼ Indicates information that has changed from previously issued version.