

Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Commercial Name: Immunoglobulin collection resin
P/N 225-32251-01
Product Name : nSMOL Antibody BA kit

Manufacturer's Name: SHINWA CHEMICAL INDUSTRIES LTD.
Address: 50-2 Kagekatsu-cho, Fushimi-ku, Kyoto 612-8307 Japan
Emergency Phone: 81(75)621-2360
Emergency Fax: 81(75)602-2660

2. HAZARDS IDENTIFICATION

HAZARD SYMBOL : -----

HAZARD STATEMENTS, including R-phrase : -----

ADDITIONAL HAZARD STATEMENTS : May be harmful if inhaled and ingested.

PRECAUTIONARY STATEMENTS, including S-phrase : -----

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name or common name	Abbreviation	Concentration or concentration range	Cas No.
Hydrophilic vinyl polymer	-----	50%	Not available
25mM Tris - HCl Buffer	-----	50%	77-86-1

4. FIRST AID MEASURES

IF INHALED:

Remove a victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician immediately.

IF ON SKIN:

Wash skin with plenty of water and soap. If any symptoms such as blister and pain occur: Get medical advice, as required.

IF IN EYES:

Immediately wash eyes with clean water for at least 15 minutes. During washing eyes, open eyelids and wash so that water can flow all over the eyes. Since eyeballs may be damaged, do not rub eyes or close eyes tightly. Immediately get medical attention.

Remove contact lenses, if present and not firmly fixed. Continue rinsing.

IF SWALLOWED:

Call a physician immediately. Rinse mouth.

Most important effects and symptoms:

No information available
Protection for first-aid responders:
First-aid responders should wear protective equipment such as rubber gloves and a closed
goggle, etc.
Note to physician:
No information available

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water

FIRE & EXPLOSION HAZARDS : Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS :

Firemen should wear normal protective equipment(full bunker gear)and
positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :

Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable
respiratory equipment. Avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS :

Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEANING UP :

Do not touch spilled material without suitable protection(See section 8). Take up spilled material
with ashes or other absorbents. After material is completely picked up, wash the spill site with
soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly.
Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING :

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material
with suitable protection away from source of heat or ignition and use non-sparking type tools. Use
explosion-proof electrical equipments and lighting.

CONDITIONS FOR SAFE STORAGE :

Store away from sunlight in a cool (4 °C) well-ventilated dry place.
Keep container tightly closed.

SAFE CONTAINERS AND PACKAGING MATERIALS :

Use containers lined with polyethylene, vinyl chloride, stainless, or rubber for storage at ambient
temperature.

AVOID CONTACT :

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Facility measures

Install equipment to wash the hands and eyes nearby.

Use closed type apparatuses and equipment or local exhaust ventilation.

Administrative levels

Not established

Occupational Exposure Limits

Not established

Personal protective equipment

Respiratory protection: Chemical- cartridge respirator for organic hazard gas, air-supplied mask, air respirator, etc.

Hand protection

Rubber protective gloves

Eyes Protection:

Safety goggles

Skin and body protection:

Vinyl protective clothing, rubber protective boots

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Suspension of liquid and powdery solid
Colour:	White
ODOUR :	Odorless
pH :	Not available
MELTING POINT :	Not available
INITIAL BOILING POINT :	Not available
FLASH POINT :	Not available
FLAMMABILITY (solid, gas) :	Unknown
EXPLOSIVE LIMITS :	Not available
VAPOR PRESSURE :	Not available
SPECIFIC GRAVITY :	Not available
SOLUBILITY IN ;	
WATER :	Miscible
ETHANOL :	Miscible
ACETONE :	Miscible
PARTITION COEFFICIENT :	Not available
DECOMPOSITION	Not available
TEMPERATURE :	

10. STABILITY AND REACTIVITY

Reactivity:

No information available

Chemical stability:

Stable at ordinary storage and handling conditions

Possibility of hazardous reactions:

Stable at ordinary storage and handling conditions

Conditions to avoid:

Avoid contact with direct sunlight, flame, and high temperature body.

Incompatible materials:

No information available

Hazardous decomposition products:

No information available

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY(oral/dermal/inhalation): Not available as the mixture

IRRITATION DATA : Not available

MUTATION DATA : Not available as the mixture

REPRODUCTIVE EFFECTS DATA: Not available as the mixture

TUMORIGENIC DATA : Not available

ADDITIONAL INFORMATION ;

NTP : Not listed
IARC : Not listed
OSHA : Not listed
ACGIH: Not listed

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY : Not available
BIOACCUMULATION POTENTIAL : Not available
AQUATIC TOXICITY : Not available
OTHER INFORMATION : Not available

13. DISPOSAL CONSIDERATION

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

DOT

Not a Hazardous Material for DOT shipping.

IATA

Not Restricted.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture:
No data available
Chemical Safety Assessment:
No data available

16. OTHER INFORMATION

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. This product is intended to be used by expert persons having chemical knowledge and skill, at their own discretion and risk and Shinwa shall not be held liable for any damage resulting from handling or from contact with the above material.

Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Commercial Name: Wash solution 1
P/N 225-32252-01
Product Name : nSMOL Antibody BA Kit

Manufacturer's Name: SHINWA CHEMICAL INDUSTRIES LTD.
Address: 50-2 Kagekatsu-cho, Fushimi-ku, Kyoto 612-8307 Japan
Emergency Phone: 81(75)621-2360
Emergency Fax: 81(75)602-2660

2. HAZARDS IDENTIFICATION

HAZARD SYMBOL : -----
HAZARD STATEMENTS, including R-phrase : -----
ADDITIONAL HAZARD STATEMENTS : May be harmful if inhaled and ingested.
PRECAUTIONARY STATEMENTS, including S-phrase : -----

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name or common name	Formula	Concentration or concentration range	Cas No.
n-Octyl-beta-D-thioglucoside	C ₁₄ H ₂₈ O ₅ S	10%	85618-21-9
1 X Phosphate Buffer Solution,	-----	90%	Not available

4. FIRST AID MEASURES

IF INHALED:

Remove a victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician immediately.

IF ON SKIN:

Wash skin with plenty of water and soap. If any symptoms such as blister and pain occur: Get medical advice, as required.

IF IN EYES:

Immediately wash eyes with clean water for at least 15 minutes. During washing eyes, open eyelids and wash so that water can flow all over the eyes. Since eyeballs may be damaged, do not rub eyes or close eyes tightly. Immediately get medical attention.

Remove contact lenses, if present and not firmly fixed. Continue rinsing.

IF SWALLOWED:

Call a physician immediately. Rinse mouth.

Most important effects and symptoms:

No information available
Protection for first-aid responders:
First-aid responders should wear protective equipment such as rubber gloves and a closed
goggle, etc.
Note to physician:
No information available

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water

FIRE & EXPLOSION HAZARDS : Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS :

Firemen should wear normal protective equipment(full bunker gear)and
positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :

Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable
respiratory equipment. Avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS :

Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEANING UP :

Do not touch spilled material without suitable protection(See section 8). Take up spilled material
with ashes or other absorbents. After material is completely picked up, wash the spill site with
soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly.
Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING :

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material
with suitable protection away from source of heat or ignition and use non-sparking type tools. Use
explosion-proof electrical equipments and lighting.

CONDITIONS FOR SAFE STORAGE :

Store away from sunlight in a cool (4 °C) well-ventilated dry place.
Keep container tightly closed.

SAFE CONTAINERS AND PACKAGING MATERIALS :

Glass, polyethylene and polypropylene

AVOID CONTACT :

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Facility measures

Install equipment to wash the hands and eyes nearby.

Use closed type apparatuses and equipment or local exhaust ventilation.

Administrative levels

Not established

Occupational Exposure Limits

Not established
Personal protective equipment
Respiratory protection: Chemical- cartridge respirator for organic hazard gas, air-supplied mask, air respirator, etc.
Hand protection
Rubber protective gloves
Eyes Protection:
Safety goggles
Skin and body protection:
Vinyl protective clothing, rubber protective boots

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Colorless
ODOUR :	Odorless
pH :	Not available
MELTING POINT :	Not available
INITIAL BOILING POINT :	Not available
FLASH POINT :	Not available
FLAMMABILITY (solid, gas) :	Unknown
EXPLOSIVE LIMITS :	Not available
VAPOR PRESSURE :	Not available
SPECIFIC GRAVITY :	Not available
SOLUBILITY IN ;	
WATER :	Miscible
ETHANOL :	Miscible
ACETONE :	Miscible
PARTITION COEFFICIENT :	Not available
DECOMPOSITION	Not available
TEMPERATURE :	

10. STABILITY AND REACTIVITY

Reactivity:
No information available
Chemical stability:
Stable at ordinary storage and handling conditions
Possibility of hazardous reactions:
Stable at ordinary storage and handling conditions
Conditions to avoid:
Avoid contact with direct sunlight, flame, and high temperature body.
Incompatible materials:
No information available
Hazardous decomposition products:
No information available

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY(oral/dermal/inhalation) : Not available as the mixture
IRRITATION DATA : Not available
MUTATION DATA : Not available as the mixture
REPRODUCTIVE EFFECTS DATA: Not available as the mixture
TUMORIGENIC DATA : Not available
ADDITIONAL INFORMATION ;

NTP : Not listed
IARC : Not listed
OSHA : Not listed
ACGIH: Not listed

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY : Not available
BIOACCUMULATION POTENTIAL : Not available
AQUATIC TOXICITY : Not available
OTHER INFORMATION : Not available

13. DISPOSAL CONSIDERATION

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

DOT

Not a Hazardous Material for DOT shipping.

IATA

Not Restricted.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture:
No data available
Chemical Safety Assessment:
No data available

16. OTHER INFORMATION

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. This product is intended to be used by expert persons having chemical knowledge and skill, at their own discretion and risk and Shinwa shall not be held liable for any damage resulting from handling or from contact with the above material.

Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Commercial Name: Wash solution 2
P/N 225-32253-01
Product Name : nSMOL Antibody BA Kit

Manufacturer's Name: SHINWA CHEMICAL INDUSTRIES LTD.
Address: 50-2 Kagekatsu-cho, Fushimi-ku, Kyoto 612-8307 Japan
Emergency Phone: 81(75)621-2360
Emergency Fax: 81(75)602-2660

2. HAZARDS IDENTIFICATION

HAZARD SYMBOL : -----

HAZARD STATEMENTS, including R-phrase : -----

ADDITIONAL HAZARD STATEMENTS : May be harmful if inhaled and ingested.

PRECAUTIONARY STATEMENTS, including S-phrase : -----

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name or common name	Formula	Concentration or concentration range	Cas No.
Sodium Chloride	NaCl	137mM	7647-14-5
Disodium Hydrogenphosphate 12-Water	Na ₂ HPO ₄ · 12H ₂ O	8.1mM	10039-32-4
Potassium Chloride	KCl	2.68mM	7447-40-7
Potassium Dihydrogen Phosphate	H ₂ KO ₄ P	1.47mM	7778-77-0

4. FIRST AID MEASURES

IF INHALED:

Remove a victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician immediately.

IF ON SKIN:

Wash skin with plenty of water and soap. If any symptoms such as blister and pain occur:
Get medical advice, as required.

IF IN EYES:

Immediately wash eyes with clean water for at least 15 minutes. During washing eyes, open eyelids and wash so that water can flow all over the eyes. Since eyeballs may be damaged, do not rub eyes or close eyes tightly. Immediately get medical attention.

Remove contact lenses, if present and not firmly fixed. Continue rinsing.

IF SWALLOWED:

Call a physician immediately. Rinse mouth.

Most important effects and symptoms:

No information available

Protection for first-aid responders:

First-aid responders should wear protective equipment such as rubber gloves and a closed goggle, etc.

Note to physician:

No information available

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water

FIRE & EXPLOSION HAZARDS : Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS :

Firemen should wear normal protective equipment(full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :

Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS :

Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEANING UP :

Do not touch spilled material without suitable protection(See section 8). Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING :

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection away from source of heat or ignition and use non-sparking type tools. Use explosion-proof electrical equipments and lighting.

CONDITIONS FOR SAFE STORAGE :

Store away from sunlight in a cool (4 °C) well-ventilated dry place.
Keep container tightly closed.

SAFE CONTAINERS AND PACKAGING MATERIALS :

Glass, polyethylene and polypropylene

AVOID CONTACT :

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Facility measures

Install equipment to wash the hands and eyes nearby.

Use closed type apparatuses and equipment or local exhaust ventilation.

Administrative levels

Not established

Occupational Exposure Limits

Not established

Personal protective equipment

Respiratory protection: Chemical- cartridge respirator for organic hazard gas, air-supplied mask, air respirator, etc.

Hand protection

Rubber protective gloves

Eyes Protection:

Safety goggles

Skin and body protection:

Vinyl protective clothing, rubber protective boots

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Colorless
ODOUR :	Odorless
pH :	Not available
MELTING POINT :	Not available
INITIAL BOILING POINT :	Not available
FLASH POINT :	Not available
FLAMMABILITY (solid, gas) :	Unknown
EXPLOSIVE LIMITS :	Not available
VAPOR PRESSURE :	Not available
SPECIFIC GRAVITY :	Not available
SOLUBILITY IN ;	
WATER :	Miscible
ETHANOL :	Miscible
ACETONE :	Miscible
PARTITION COEFFICIENT :	Not available
DECOMPOSITION	Not available
TEMPERATURE :	

10. STABILITY AND REACTIVITY

Reactivity:

No information available

Chemical stability:

Stable at ordinary storage and handling conditions

Possibility of hazardous reactions:

Stable at ordinary storage and handling conditions

Conditions to avoid:

Avoid contact with direct sunlight, flame, and high temperature body.

Incompatible materials:

No information available

Hazardous decomposition products:

No information available

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY(oral/dermal/inhalation): Not available as the mixture

IRRITATION DATA: Not available

MUTATION DATA: Not available as the mixture

REPRODUCTIVE EFFECTS DATA: Not available as the mixture

TUMORIGENIC DATA: Not available

ADDITIONAL INFORMATION ;

NTP: Not listed

IARC: Not listed

OSHA: Not listed

ACGIH: Not listed

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY: Not available

BIOACCUMULATION POTENTIAL: Not available

AQUATIC TOXICITY: Not available

OTHER INFORMATION: Not available

13. DISPOSAL CONSIDERATION

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

DOT

Not a Hazardous Material for DOT shipping.

IATA

Not Restricted.

15. REGULATORY INFORMATION

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

Safety, health and environmental regulations/legislation specific for the substance or mixture:

No data available

Chemical Safety Assessment;

No data available

16. OTHER INFORMATION

DISCLAIMER

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Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Commercial Name: Reaction solution
P/N 225-32254-01
Product Name : nSMOL Antibody BA kit

Manufacturer's Name: SHINWA CHEMICAL INDUSTRIES LTD.
Address: 50-2 Kagekatsu-cho, Fushimi-ku, Kyoto 612-8307 Japan
Emergency Phone: 81(75)621-2360
Emergency Fax: 81(75)602-2660

2. HAZARDS IDENTIFICATION

HAZARD SYMBOL : -----

HAZARD STATEMENTS, including R-phrase : -----

ADDITIONAL HAZARD STATEMENTS : May be harmful if inhaled and ingested.

PRECAUTIONARY STATEMENTS, including S-phrase : -----

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name or common name	Formula	Concentration or concentration range	Cas No.
Tris(hydroxymethyl)aminomethane	C ₄ H ₁₁ NO ₃	25mM	77-86-1

4. FIRST AID MEASURES

IF INHALED:

Remove a victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician immediately.

IF ON SKIN:

Wash skin with plenty of water and soap. If any symptoms such as blister and pain occur: Get medical advice, as required.

IF IN EYES:

Immediately wash eyes with clean water for at least 15 minutes. During washing eyes, open eyelids and wash so that water can flow all over the eyes. Since eyeballs may be damaged, do not rub eyes or close eyes tightly. Immediately get medical attention.

Remove contact lenses, if present and not firmly fixed. Continue rinsing.

IF SWALLOWED:

Call a physician immediately. Rinse mouth.

Most important effects and symptoms:

No information available

Protection for first-aid responders:

First-aid responders should wear protective equipment such as rubber gloves and a closed goggle, etc.

Note to physician:

No information available

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water

FIRE & EXPLOSION HAZARDS : Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS :

Firemen should wear normal protective equipment(full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :

Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS :

Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEANING UP :

Do not touch spilled material without suitable protection(See section 8). Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING :

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection away from source of heat or ignition and use non-sparking type tools. Use explosion-proof electrical equipments and lighting.

CONDITIONS FOR SAFE STORAGE :

Store away from sunlight in a cool (4 °C) well-ventilated dry place.
Keep container tightly closed.

SAFE CONTAINERS AND PACKAGING MATERIALS :

Glass, polyethylene and polypropylene

AVOID CONTACT :

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Facility measures

Install equipment to wash the hands and eyes nearby.

Use closed type apparatuses and equipment or local exhaust ventilation.

Administrative levels

Not established

Occupational Exposure Limits

Not established

Personal protective equipment

Respiratory protection: Chemical- cartridge respirator for organic hazard gas, air-supplied mask, air respirator, etc.

Hand protection

Rubber protective gloves
Eyes Protection:
Safety goggles
Skin and body protection:
Vinyl protective clothing, rubber protective boots

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Colorless
ODOUR :	Odorless
pH :	Not available
MELTING POINT :	Not available
INITIAL BOILING POINT :	Not available
FLASH POINT :	Not available
FLAMMABILITY (solid, gas) :	Unknown
EXPLOSIVE LIMITS :	Not available
VAPOR PRESSURE :	Not available
SPECIFIC GRAVITY :	Not available
SOLUBILITY IN ;	
WATER :	Miscible
ETHANOL :	Miscible
ACETONE :	Miscible
PARTITION COEFFICIENT :	Not available
DECOMPOSITION	Not available
TEMPERATURE :	

10. STABILITY AND REACTIVITY

Reactivity:
No information available
Chemical stability:
Stable at ordinary storage and handling conditions
Possibility of hazardous reactions:
Stable at ordinary storage and handling conditions
Conditions to avoid:
Avoid contact with direct sunlight, flame, and high temperature body.
Incompatible materials:
No information available
Hazardous decomposition products:
No information available

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY(oral/dermal/inhalation): Not available as the mixture
IRRITATION DATA : Not available
MUTATION DATA : Not available as the mixture
REPRODUCTIVE EFFECTS DATA: Not available as the mixture
TUMORIGENIC DATA : Not available
ADDITIONAL INFORMATION ;
NTP : Not listed
IARC : Not listed
OSHA : Not listed
ACGIH: Not listed

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY : Not available
BIOACCUMULATION POTENTIAL : Not available
AQUATIC TOXICITY : Not available
OTHER INFORMATION : Not available

13. DISPOSAL CONSIDERATION

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

DOT

Not a Hazardous Material for DOT shipping.

IATA

Not Restricted.

15. REGULATORY INFORMATION

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

Safety, health and environmental regulations/legislation specific for the substance or mixture:

No data available

Chemical Safety Assessment:

No data available

16. OTHER INFORMATION

DISCLAIMER

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Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Commercial Name: Enhanced reaction solution C

P/N 225-32255-01

Product Name : nSMOL Antibody BA kit

Manufacturer's Name: SHINWA CHEMICAL INDUSTRIES LTD.

Address: 50-2 Kagekatsu-cho, Fushimi-ku, Kyoto 612-8307 Japan

Emergency Phone: 81(75)621-2360

Emergency Fax: 81(75)602-2660

2. HAZARDS IDENTIFICATION

HAZARD SYMBOL : -----

HAZARD STATEMENTS, including R-phrase : -----

ADDITIONAL HAZARD STATEMENTS : May be harmful if inhaled and ingested.

PRECAUTIONARY STATEMENTS, including S-phrase : -----

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name or common name	Formula	Concentration or concentration range	Cas No.
Tris(hydroxymethyl)aminomethane	C ₄ H ₁₁ NO ₃	-----	77-86-1
Urea	CH ₄ N ₂ O	-----	57-13-6
Tris(2-carboxyethyl)phosphine hydrochloride	C ₉ H ₁₅ O ₆ P · HCl	-----	51805-45-9

4. FIRST AID MEASURES

IF INHALED:

Remove a victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician immediately.

IF ON SKIN:

Wash skin with plenty of water and soap. If any symptoms such as blister and pain occur: Get medical advice, as required.

IF IN EYES:

Immediately wash eyes with clean water for at least 15 minutes. During washing eyes, open eyelids and wash so that water can flow all over the eyes. Since eyeballs may be damaged, do not rub eyes or close eyes tightly. Immediately get medical attention.

Remove contact lenses, if present and not firmly fixed. Continue rinsing.

IF SWALLOWED:

Call a physician immediately. Rinse mouth.

Most important effects and symptoms:

No information available

Protection for first-aid responders:

First-aid responders should wear protective equipment such as rubber gloves and a closed goggles, etc.

Note to physician:

No information available

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water

FIRE & EXPLOSION HAZARDS : Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS :

Firemen should wear normal protective equipment(full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :

Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS :

Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEANING UP :

Do not touch spilled material without suitable protection(See section 8). Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING :

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection away from source of heat or ignition and use non-sparking type tools. Use explosion-proof electrical equipments and lighting.

CONDITIONS FOR SAFE STORAGE :

Store away from sunlight in a cool (4 °C) well-ventilated dry place.

Keep container tightly closed.

SAFE CONTAINERS AND PACKAGING MATERIALS :

Glass

AVOID CONTACT :

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Facility measures

Install equipment to wash the hands and eyes nearby.

Use closed type apparatuses and equipment or local exhaust ventilation.

Administrative levels

Not established

Occupational Exposure Limits

Not established

Personal protective equipment

Respiratory protection: Chemical- cartridge respirator for organic hazard gas, air-supplied mask, air respirator, etc.

Hand protection

Rubber protective gloves

Eyes Protection:

Safety goggles

Skin and body protection:

Vinyl protective clothing, rubber protective boots

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid
Colour:	Not available
ODOUR :	Not available
pH :	Not available
MELTING POINT :	Not available
INITIAL BOILING POINT :	Not available
FLASH POINT :	Not available
FLAMMABILITY (solid, gas) :	Unknown
EXPLOSIVE LIMITS :	Not available
VAPOR PRESSURE :	Not available
SPECIFIC GRAVITY :	Not available
SOLUBILITY IN ;	
WATER :	Miscible
ETHANOL :	Miscible
ACETONE :	Miscible
PARTITION COEFFICIENT :	Not available
DECOMPOSITION	Not available
TEMPERATURE :	

10. STABILITY AND REACTIVITY

Reactivity:

No information available

Chemical stability:

Stable at ordinary storage and handling conditions

Possibility of hazardous reactions:

Stable at ordinary storage and handling conditions

Conditions to avoid:

Avoid contact with direct sunlight, flame, and high temperature body.

Incompatible materials:

No information available

Hazardous decomposition products:

No information available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50
Tris(hydroxymethyl)aminomethane	-----	-----
Urea	8471mg/kg (rat) 11g/kg (mouse)	-----
Tris(2-carboxyethyl)phosphine hydrochloride	3500mg/kg (rat)	>3000mg/kg (rat)

Skin irritation/corrosion	No data available
Serious eye damage/ irritation	No data available
Respiratory or skin sensitization	No data available
Reproductive cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY : Not available
BIOACCUMULATION POTENTIAL : Not available
AQUATIC TOXICITY : Not available
OTHER INFORMATION : Not available

13. DISPOSAL CONSIDERATION

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

DOT

Not a Hazardous Material for DOT shipping.

IATA

Not Restricted.

15. REGULATORY INFORMATION

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

Safety, health and environmental regulations/legislation specific for the substance or mixture:

No data available

Chemical Safety Assessment:

No data available

16. OTHER INFORMATION

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. This product is intended to be used by expert persons having chemical knowledge and skill, at their own discretion and risk and Shinwa shall not be held liable for any damage resulting from handling or from contact with the above material.

Material Safety Data Sheet

Version 1.0
Date 12/06/2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : nSMOL Antibody BA Kit
FG beads Trypsin DART
Product number :225-32256-01
Product uses : For in vitro research use
Physical state : Suspension
Company : Tamagawa Seiki Co., Ltd.
Telephone : +81 265-21-0501
Fax : +81 265-21-1896

2. HAZARDS IDENTIFICATION

3.1 Classification of the substance or mixture
Classification according to the Hazard Communication Standard (HCS)



GHS08 health hazard

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS07

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

3.2 Label elements

GHS label elements The product is classified and labelled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS07, GHS08

Signal ward Danger

Hazard-determining components of labeling:

Trypsin

Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.

Precautionary statements

In case of inadequate ventilation wear respiratory protection.

Avoid breathing dust/fume/gas/mist/vapours/spray.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable. *Description of first aid measures*

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Substances

CAS No. Description:

9002-07-7 Trypsin



Identification number(s):

EC number: 232-650-8

Index number: 647-010-00-7

Chemical characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Components:			
9002-07-7	Trypsin	 H334;  H315; H319; H335	0.1%

4. FIRST AID MEASURES

After skin contact:

Immediately wash with soap, water and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth with water. If symptoms persist consult doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed Allergic reactions

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture None known

Advice for firefighters No special advice.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Wear protective clothing.

Environmental precautions: No special measures required.

Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:

Keep respiratory protective device available.

The product is not flammable

Keep in properly labeled containers. Keep at -80°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

Control parameters

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

Exposure controls

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

Clean skin thoroughly immediately after handling the product.

Respiratory protection:

In case of insufficient ventilation wear suitable respiratory equipment.

Protection of hands:

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles. Contains no substances with occupational exposure limit values.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Liquid (Suspension)
Colour	Brown

Safety data

pH	no data available
Melting point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Water solubility	insoluble

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Conditions to avoid

Avoid light.

Hazardous decomposition products

No information available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

No information available

Potential Health Effects

No information available

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

no data available

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

International transport regulations

Not classified

15. REGULATORY INFORMATION

In accordance with local and national regulations

GHS label elements The product is classified and labelled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS07, GHS08

Signal word Danger

Hazard-determining components of labelling:

Trypsin

Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause respiratory irritation.

Precautionary statements

In case of inadequate ventilation wear respiratory protection.

Avoid breathing dust/fume/gas/mist/vapours/spray.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

Waterhazard class: Generally not hazardous for water.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Tamagawa Seiki Co., shall not be held liable for any damage resulting from handling or from contact with the above product.

Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Commercial Name: Reaction stop solution
P/N 225-32257-01
Product Name : nSMOL Antibody BA Kit

Manufacturer's Name: SHINWA CHEMICAL INDUSTRIES LTD.
Address: 50-2 Kagekatsu-cho, Fushimi-ku, Kyoto 612-8307 Japan
Emergency Phone: 81(75)621-2360
Emergency Fax: 81(75)602-2660

2. HAZARDS IDENTIFICATION

GHS classification
Classification of the substance or mixture
Skin corrosion/irritation : Category 1 A
Classification according to EU Directives 67/548/EEC or 1999/45/EC
Xi Irritant R36/38

Label elements
Labelling according Regulation (EC) No 1272/2008
Pictograms



Signal word Danger

Hazard statements

H314 - Causes severe skin burns and eye damage

Precautionary statements

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305 + P351 + P338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310- Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements none

According to European Directive 67/548/EEC as amended.

Hazard symbol(s) Xi Irritant

R-phrases) R36/38 Irritating to eyes and skin.

S-phrases) S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	Formula	Content	Cas No.
Formic acid	HCOOH	10%	64-18-6
Water,	H2O	90%	7732-18-5

4. FIRST AID MEASURES

IF INHALED:

Remove a victim to fresh air and keep at rest in a position comfortable for breathing.
Call a physician immediately.

IF ON SKIN:

Wash skin with plenty of water and soap. If any symptoms such as blister and pain occur:
Get medical advice, as required.

IF IN EYES:

Immediately wash eyes with clean water for at least 15 minutes. During washing eyes, open
Eye lids and wash so that water can flow all over the eyes. Since eyeballs may be damaged,
do not rub eyes or close eyes tightly. Immediately get medical attention.
Remove contact lenses, if present and not firmly fixed. Continue rinsing.

IF SWALLOWED:

Call a physician immediately. Rinse mouth.

Most important effects and symptoms:

No information available

Protection for first-aid responders:

First-aid responders should wear protective equipment such as rubber gloves and a closed
goggle, etc.

Note to physician:

No information available

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Extinguishing powder, Foam, carbon dioxide (CO₂), Sand

Unsuitable extinguishing media

Do not use straight streams

Special extinguishing method

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Protection of fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained
breathing apparatus and full firefighting turnout gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable,
closed containers for disposal.

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

HANDLING :

Technical measures

Avoid contact with high temperature objects, spark, and strong oxidizing agents. Avoid contact with eyes and skin Cool the ampoule before the opening. To cut with care and wear protective gloves and protective goggles to ampoule time of the opening. (Cutting method to check the label) Use with local exhaust ventilation.

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

STORAGE

Safe storage conditions

Store away from sunlight in a cool (4 °C) well-ventilated dry place.

Keep container tightly closed.

Safe packaging material Glass Ampoule

Incompatible substances Oxidizers, strong acids, strong alkalis, metals, plastics, moisture/water

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES : Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION : Local Exhaust ; Necessary, Mechanical(General) ; Necessary Special; Closed system is recommended.

PERSONAL PROTECTION ;

Respiratory protection :Use a NIOSH/MSHA or European Standard EN149 approved respirator

Hand protection : Chemical resistant gloves

Eye protection : Safety glasses(goggles)

Skin protection : Protective clothing

CONTROL PARAMETER : as Formic acid;

OSHA Final Limits : TWA= 5ppm, 9mg/m³

ACGIH TLV(s) : TWA= 5ppm, 9.4mg/m³; STEL=10ppm, 19mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :	Liquid
COLOUR:	Colorless
ODOUR :	Pungent odor
pH :	Strongly acidic
MELTING POINT :	Not available
INITIAL BOILING POINT :	Not available
FLASH POINT :	Not available
FLAMMABILITY (solid, gas) :	Not available
EXPLOSIVE LIMITS :	Not available
VAPOR PRESSURE :	Not available
VAPOR DENSITY :	Not available
SPECIFIC GRAVITY :	Not available
SOLUBILITIES ;	Water , Alcohols , Ethanol : free soluble .
n-Octanol/water partition coefficient:(log Pow)	Not available
AUTO-IGNITION TEMPERATURE:	Not available
DECOMPOSITION EMPERATURE:	Not available

VISCOSITY (coefficient of viscosity) Not available
DYNAMIC VISCOSITY Not available

10. STABILITY AND REACTIVITY

Stability

Stability : May be altered by light.

Reactivity: No data available

Hazardous reactions

Conditions to avoid:

Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark

Incompatible materials:

Strong oxidizing agents, Metals, Strong bases, Strong acids

Hazardous decomposition products:

Carbon monoxide (CO), carbon dioxide (CO₂)

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Formic acid	730 mg/kg (Rat)	N/A	15 g/m ³ (Rat) 15 min

ACUTE TOXICITY (oral) :

LD₅₀(orl, rat): 730-1830 mg/kg(DFGOT(2003)),

LD₅₀(orl, rat): 1830 mg/kg(PATY (5th, 2001)),

LD₅₀(orl, rat): 1100-1850 mg/kg(NTP TR19 (1992)).

ACUTE TOXICITY (inhalation vapor)

LC₅₀ (ihl, rat): 7.4mg/L =3931ppmV(DFGOT (2003)).

IRRITATION DATA : Not available

MUTATION DATA : Not available

REPRODUCTIVE EFFECTS DATA: Not available

TUMORIGENIC DATA : Not available

ADDITIONAL INFORMATION ;

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Kidney - Irregularities - Based on Human Evidence (Formic acid)

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY : Not available

BIOACCUMULATION POTENTIAL : Not available

AQUATIC TOXICITY : Not available

OTHER INFORMATION : Not available

13. DISPOSAL CONSIDERATION

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

IATA

UN number UN3412

Proper shipping name: Formic acid

UN classification 8
Packing group II

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture:
No data available
Chemical Safety Assessment:
No data available

16. OTHER INFORMATION

DISCLAIMER

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