



DIOSHIELD A

MATERIAL SAFETY DATA SHEET

RS Hygiene Limited, The Street Worlington Suffolk IP28 8RX
Telephone: 03331230202 EMail: tech@rshygiene.co.uk

1 PRODUCT IDENTIFIER

PRODUCT NAME DIOSHIELD A
PRODUCT CODE 010902

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

For professional use only

Type of biocide preparation Liquid mixture, ready to use.
Product-type TP3, veterinary hygiene biocidal product.
Specific use Udder hygiene, post milking bi-component filmogenic teap dip product conditioner and disinfectant.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

RS Hygiene Ltd, The Street, Worlington, Suffolk IP28 728 Tel: 03331230202

2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

2.2. Label elements

Biocidal mixture (see section 15).

In compliance with EC regulation No. 1272/2008 and its amendments.

Additional labeling :
EUH210 Safety data sheet available on request.
Precautionary statements - Prevention :
P273 Avoid release to the environment.
Precautionary statements - Disposal :
P501 Dispose of material and its container as an hazardous waste.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European CHemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>
The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 56-81-5		[1]	2.5 \leq x % < 10
EC: 200-289-5			
GLYCEROL			
CAS: 79-33-4	GHS05		2.5 \leq x % < 10
EC: 201-196-2	Dgr		
REACH: 01-2119474164-39-0001	Skin Irrit. 2, H315 Eye Dam. 1, H318		

L-LACTIC ACID

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.



DIOSHIELD A

MATERIAL SAFETY DATA SHEET

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of splashes or contact with eyes :

Rinse immediately with plenty of soft and cleaner water for at least 15 minutes and keep the eyelids open.
If there is any redness, pain or visual impairment, consult an ophtalmologist.

In the event of swallowing :

Do not induce vomiting, do not provide drink, call a physician and show the label or MSDS.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

Information for the doctor :

The formulation is declared at the poison control center of Nancy, France and INRS.

SECTION 5 : FIREFIGHTING MEASURES

5.1. Extinguishing media

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- foam
- multipurpose ABC powder

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean-up instruction : Use an inert absorbent and wash area with plenty of water.

6.4. Reference to other sections

No data available.

SECTION 7: Handling and storage



DIOSHIELD A

MATERIAL SAFETY DATA SHEET

7.1. Precautions for safe handling

Precautions for safe handling

Always wash hands after handling.

Fire prevention

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep container tightly closed in a fresh and dry place.

Packaging

Always keep in packaging made of an identical material to the original.

Recommended types of packaging :

- Vats

Suitable packaging materials :

- Polyethylene

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA	STEL	Ceiling	Definition	Criteria :
56-81-5	10 mg/m ³	-	-	-	-

- France (INRS - ED984 :2008) :

CAS	VME-ppm	VME-mg/m ³	VLE-ppm	VLE-mg/m ³	Notes	TMP No :
56-81-5	-	10	-	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA	STEL	Ceiling	Definition	Criteria :
56-81-5	10 mg/m ³	-	-	-	-

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Type of gloves recommended :

- Natural latex

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

- PVC (polyvinyl chloride)

- Butyl Rubber (Isobutylene-isoprene copolymer)



DIOSHIELD A

MATERIAL SAFETY DATA SHEET

- Neoprene® (Polychloroprene)

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state Viscous liquid.

Important health, safety and environmental information

pH 2.50 .

Slightly acidic.

Flash point interval

Boiling point/boiling range : Not specified.

Not relevant.

Vapour pressure (50°C)

Not relevant.

Density

1.00

Water solubility

Dilutable.

Melting point/melting range

Not specified.

Self-ignition temperature

Not specified.

Decomposition point/decomposition range

Not specified.

9.2. Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

- frost

Do not mix with other products unless you have a written authorization from us.

10.5. Incompatible materials

Keep away from :

- strong bases

- strong oxidising agents

- strong reducing agents

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)

- carbon dioxide (CO₂)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No data available

11.1.1. Substances

Acute toxicity :

L-LACTIC ACID (CAS: 79-33-4)

Oral route

LD50 = 3543 mg/kg

Species

Rat



DIOSHIELD A

MATERIAL SAFETY DATA SHEET

EPA OPP 81-1 (Acute Oral Toxicity)

Dermal route LD50 > 2000 mg/kg

Species Rabbit

EPA OPP 81-2 (Acute Dermal Toxicity)

Inhalation route (n/a) LC50 > 7.94 mg/l

Species Rat

OECD Guideline 403 (Acute Inhalation Toxicity)

GLYCEROL (CAS: 56-81-5)

Oral route LD50 = 12000 mg/kg

Species Rat

Dermal route LD50 > 10000 mg/kg

Species Rabbit

Inhalation route (n/a) LC50 > 0.57 mg/l

Species Rat

11.1.2. Mixture

Serious damage to eyes/eye irritation :

No observed effect.

Corneal haze

Average score = 0.9

Species Rabbit

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Iritis Average score = 0.3

Species Rabbit

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Conjunctival redness

Average score = 1.2

Species Rabbit

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Conjunctival oedema

Average score = 1.0

Species Rabbit

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

L-LACTIC ACID (CAS: 79-33-4)

Fish toxicity LC50 = 130 mg/l

Species Lepomis macrochirus

Duration of exposure 96 h

Crustacean toxicity EC50 = 130 mg/l

Species Daphnia magna

Duration of exposure 48 h

Algae toxicity ECr50 = 2800 mg/l

Species Pseudokirchnerella subcapitata

Duration of exposure 72 h

GLYCEROL (CAS: 56-81-5)

Fish toxicity LC50 = 54000 mg/l

Species Oncorhynchus mykiss

Duration of exposure 96 h

Crustacean toxicity EC50 > 10000 mg/l

Species Daphnia magna

Duration of exposure 24 h



DIOSHIELD A

MATERIAL SAFETY DATA SHEET

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

L-LACTIC ACID (CAS: 79-33-4)

Biodegradability

Rapidly degradable.

GLYCEROL (CAS: 56-81-5)

Biodegradability

no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

Codes of wastes (Decision 2001/573/EC, Directive 2006/12/EEC, Directive 94/31/EEC on hazardous waste) :

16 05 08 * discarded organic chemicals consisting of or containing dangerous substances

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2013 - IMDG 2012 - ICAO/IATA 2014)

SECTION 15: REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.

- Container information:

No data available.

- Particular provisions :

No data available.



DIOSHIELD A

MATERIAL SAFETY DATA SHEET

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H315 Causes skin irritation.
H318 Causes serious eye damage.

Abbreviations

ADR European agreement concerning the international carriage of dangerous goods by Road.
IMDG International Maritime Dangerous Goods.
IATA International Air Transport Association.
ICAO International Civil Aviation Organisation
RID Regulations concerning the International carriage of Dangerous goods by rail.
WGK Wassergefährdungsklasse (Water Hazard Class).
PBT Persistent, bioaccumulable and toxic.
vPvB Very persistent, very bioaccumulable.
SVHC Substances of very high concern