



SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : RHODIMET® AT 88

Product code : ADI004.

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

Additive for animal feed.

Synthesis intermediate.

1.3. Details of the supplier of the safety data sheet

Registered company name : Adisseo France S.A.S

Address : Immeuble Antony Parc II - 10, Place du Général de Gaulle 92160 Antony France

Telephone : +33 (0)1 46 74 70 00. Fax: +33 (0)1 40 96 96 96. Telex: -.

Email: fds@adisseo.com

<http://www.adisseo.com>

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

Other emergency numbers

CareChem (24h/24): + 44 (0) 1235 239 670

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

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

Hazard pictograms :



GHS05

Signal Word :

DANGER

Product identifiers :

EC 700-857-7

REACTION MASS OF 2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID AND 2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID DIMER

Hazard statements :

H315

Causes skin irritation.

H318

Causes serious eye damage.

Precautionary statements - Prevention :

P264

Wash hands thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/

...

Precautionary statements - Response :

P302 + P352	IF ON SKIN: Wash with plenty of water.
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/doctor.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
Other information :	
	For user safety: safety glasses and gloves should be worn during handling.

2.3. Other hazards

The substance does not fulfil the PBT or vPvP criteria in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Composition :

Identification	(EC) 1272/2008	Note	%
EC: 700-857-7 REACH: 01-2119935589-21	GHS05 Dgr Skin Irrit. 2, H315 Eye Dam. 1, H318		50 <= x % < 100
REACTION MASS OF 2-HYDROXY-4-(METHYLTHIO)BUTANOI C ACID AND 2-HYDROXY-4-(METHYLTHIO)BUTANOI C ACID DIMER			

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 exposure by inhalation :

If inhaled, move the patient into the fresh air and keep warm and at rest.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.
Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.
Watch out for any remaining product between skin and clothing, watches, shoes, etc.
If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.
Seek medical attention immediately, showing the label.
Do not force vomiting.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.
Keep packages near the fire cool, to prevent pressurised containers from bursting.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :
- sprayed water or water mist
- carbon dioxide (CO2)
- foam

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)
- sulphur dioxide (SO₂)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

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 preferably with a detergent, do not use solvents.

Pump the product into a suitably-labelled non-metal, sealed, plastic, salvage receptacle.

Neutralise surplus carefully; use lime or sodium carbonate.

Wash the ground thoroughly with running water.

Wash non-retrievable surplus thoroughly with running water.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the substance is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Provide emergency showers and eye wash stations will be required in facilities where the substance is handled constantly.

When deliveries are made in drums or IBC, only use fork-lift trucks or pallet trucks for unloading vans and containers as well as for moving products.

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.

Avoid eye contact with this substance at all times.

Prohibited equipment and procedures :

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

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry and well-ventilated area.

Stack at ambient temperature in the original receptacle.

Store the receptacle tightly closed.

Packaging

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

Suitable packaging materials :

- Polyethylene
- Stainless steel

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



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.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

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

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVC (polyvinyl chloride)

- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

- Impervious gloves in accordance with standard EN374

Wear gloves sealed to acids.

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

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.

- Respiratory protection

If ventilation is insufficient to maintain fume concentrations below maximum exposure values, wear respiratory devices.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Viscous liquid.
Colour:	Brown.
Odour:	Characteristic.

Important health, safety and environmental information

pH :	Not relevant.
pH (aqueous solution) :	2.4 +/-0.1 (10 g/l H2O)
Boiling point/boiling range :	120 °C.

Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	1.23
Water solubility :	Soluble.
Viscosity :	105 cSt (25°C)
Solubility in organic solvents:	Insoluble or partially soluble in standard solvents.
pKA :	3.4 +/-0.1

9.2. Other information

Crystallization point/crystallization range :	-40°C
Heat of combustion :	- 349.863 kcal/mol.

SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity**

No data available.

10.2. Chemical stability

This substance 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

No data available.

10.5. Incompatible materials

Keep away from :

- strong oxidising agents
- strong bases

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)
- sulphur dioxide (SO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

11.1.1. Substances**Acute toxicity :**

REACTION MASS OF 2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID AND 2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID DIMER

Oral route : LD50 = 3170 mg/kg
Species : Rat

Dermal route : 2,000 < LD50 <= 5000 mg/kg

Skin corrosion/skin irritation :

No skin irritation.

Other information

Mutagenic effects: Non mutagenous in the AMES test.

SECTION 12 : ECOLOGICAL INFORMATION**12.1. Toxicity****12.1.1. Substances**

REACTION MASS OF 2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID AND 2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID DIMER

Fish toxicity : LC50 = 240 mg/l
Species : Brachydanio rerio
Duration of exposure : 96 h

OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity :

EC50 = 222 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity :

ECr50 = 89 mg/l
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC = 58 mg/l
Species : Selenastrum capricornutum
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Easily biodegradable.

12.2.1. Substances

REACTION MASS OF 2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID AND 2-HYDROXY-4-(METHYLTHIO)BUTANOIC ACID DIMER

Biodegradability : Rapidly degradable.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Adsorption/desorption: product infiltrates easily into soils.

Product's target compartment: water

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

Nicht wassergefährdend : Not hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the substance 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.



SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling (ADR - IMDG - OACI/IATA).

14.1. UN number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

14.6. Special precautions for user**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:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2018/1480 (ATP 13)

- Container information:

No data available.

- Particular provisions :

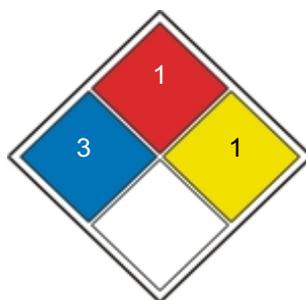
No data available.

- German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

Nicht wassergefährdend : Not hazardous for water.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=3 Inflammability=1 Instability/Reactivity=1 Specific Risk=none

**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.

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 substance 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).

GHS05 : Corrosion

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.