



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) CAT 1251
Product Name adrenaline impurity standard
Form Not applicable
Pure substance/mixture Mixture

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

Recommended use Laboratory use
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier

British Pharmacopoeia Commission
MHRA
10 South Colonnade
Canary Wharf
London E14 4PU
United Kingdom

Tel : +44 (0)20 3080 6561
eMail: bpcrs@mhra.gov.uk

For further information, please contact

E-mail address bpcrs@mhra.gov.uk

1.4. Emergency telephone number

Emergency Telephone +44 (0)20 3080 6561 (Monday - Friday: 8am - 5pm)

Emergency Telephone - §45 - (EC)1272/2008

Europe	112
Austria	No information available



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Bulgaria	
Croatia	
Cyprus	
Czech Republic	
Denmark	
France	
Hungary	
Ireland	
Italy	
Lithuania	
Luxembourg	
Netherlands	
Norway	
Portugal	
Romania	
Slovakia	
Slovenia	
Spain	
Sweden	
Switzerland	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to
Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral	Category 1 - (H300)
Acute toxicity - Dermal	Category 1 - (H310)
Acute toxicity - Inhalation (Dusts/Mists)	Category 2 - (H330)

2.2. Label elements

Contains Epinephrine hydrogen tartrate; Noradrenaline



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

**Signal word**

Danger

Hazard statements

H300 - Fatal if swallowed.

H310 - Fatal in contact with skin.

H330 - Fatal if inhaled.

Precautionary Statements - EU (§28, 1272/2008)

P260 - Do not breathe dust, fume, gas, mist, vapors and spray

P262 - Do not get in eyes, on skin, or on clothing

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves and protective clothing

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P310 - Immediately call a POISON CENTER or doctor

P320 - Specific treatment is urgent (see supplemental first aid instructions on this label)

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

2.3. Other hazards

No information available.

PBT & vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Epinephrine hydrogen tartrate	-	-
Noradrenaline	-	-
Epinephrine Sulfonic Acid	-	-
Adrenochrome	-	-



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Adrenalone	-	-
------------	---	---

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical nature Mixture of organic compounds.

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Epinephrine hydrogen tartrate 51-42-3	80 - 100	-	200-097-1	Acute Tox. 1 (H300) Acute Tox. 1 (H310) Acute Tox. 2 (H330)	-	-	-	-
Noradrenaline 51-41-2	1 - <3	-	200-096-6	Acute Tox. 2 (H300) Acute Tox. 2 (H310) Acute Tox. 2 (H330) Repr. 2 (H361fd) STOT SE 2 (H371)	-	-	-	-
Epinephrine Sulfonic Acid 26405-77-6	1 - <3	-	636-772-6	Acute Tox. 2 (H310) Acute Tox. 3 (H301) Acute Tox. 3 (H331)	-	-	-	-
Adrenochrome 54-06-8	1 - <3	-	200-192-8	Acute Tox. 4 (H302)	-	-	-	-
Adrenalone 99-45-6	1 - <3	-	202-756-9	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332)	-	-	-	-

- Substances contained in this mixture with No registration number are under the REACH threshold in Article 6(1) and not subject to the registration requirements according to REACH Title II

Full text of H- and EUH-phrases: see section 16



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Acute Toxicity Estimate
No information available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59).

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Do not breathe dust. If breathing is difficult, (trained personnel should) give oxygen.
Eye contact	Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.
Skin contact	Get immediate medical attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Get immediate medical attention. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information.

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

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

Effects of Exposure No information available.



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid generation of dust. Do not breathe dust. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
------------------------------------	--

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash it before reuse. Do not breathe dust. Avoid generation of dust. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.
---------------------------	---

Storage class (TRGS 510)	LGK 6.1A.
---------------------------------	-----------

7.3. Specific end use(s)



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers No information available

Derived No Effect Level (DNEL) - General Public No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective nitrile rubber gloves. Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Impervious clothing. Chemical resistant apron.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Recommended filter type: white. Particulates filter conforming to EN 143.



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

General hygiene considerations	Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Solid
Physical state	Solid
Colour	light blue
Odour	Odourless
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
SADT (°C)	No data available	None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regards to physical hazard classes

No information available

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Fatal in contact with skin. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Fatal if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled.

Numerical measures of toxicity

The following ATE values have been calculated for the mixture:

ATEmix (oral) 4.13 mg/kg
 ATEmix (dermal) 5.20 mg/kg
 ATEmix (inhalation-gas) 99,999.00 ppm
 ATEmix (inhalation-vapour) 99,999.00 mg/l
 ATEmix (inhalation-dust/mist) 0.0516 mg/l

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Epinephrine hydrogen tartrate	= 4 mg/kg (Mouse)	-	-
Noradrenaline	20 mg/kg (mouse)	62 mg/kg (Rat)	-

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

12.2. Persistence and degradability

Persistence and degradability No information available.



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

12.3. Bioaccumulative potential

Bioaccumulation

Chemical name	Partition coefficient
Epinephrine Sulfonic Acid	-4.1

12.4. Mobility in soil

Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Based on available data, the classification criteria are not met.

12.6. Endocrine disrupting properties

Endocrine disrupting properties

Based on available data, the classification criteria are not met.

12.7. Other adverse effects

Other adverse effects

No information available.

PMT or vPvM properties

Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number

UN2811

14.2 UN proper shipping name

Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid)

14.3 Transport hazard class(es)

6.1

14.4 Packing group

I

Description

UN2811, Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid), 6.1, I

14.5 Environmental hazards

No



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

14.6 Special precautions for user

Special Provisions A3, A5
ERG Code 6L

IMDG

14.1 UN number or ID number UN2811
14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid)
14.3 Transport hazard class(es) 6.1
14.4 Packing group I
Description UN2811, Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid), 6.1, I
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions 274
EmS-No. F-A, S-A
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number UN2811
14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid)
14.3 Transport hazard class(es) 6.1
14.4 Packing group I
Description UN2811, Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid), 6.1, I
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions 274, 614
Classification code T2

ADR

14.1 UN number or ID number UN2811
14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid)
14.3 Transport hazard class(es) 6.1
14.4 Packing group I
Description UN2811, Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid), 6.1, I, (C/E)
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions 274, 614
Classification code T2
Tunnel restriction code (C/E)



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

ADN

14.1 UN number or ID number	UN2811
14.2 UN proper shipping name	Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	I
Description	UN2811, Toxic solid, organic, n.o.s. (Epinephrine hydrogen tartrate, Epinephrine Sulfonic Acid), 6.1, I
14.5 Environmental hazard	No
14.6 Special precautions for user	
Special Provisions	274, 614, 802
Classification code	T2
Equipment Requirements	PP, EP

SECTION 15: Regulatory information

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

National regulations

Germany

Water hazard class (WGK)	strongly hazardous to water (WGK 3)
Chemical Prohibition Ordinance (ChemVerbotsV)	This product is subject to requirements and restrictions regarding handling and delivery

TRGS 905

Not applicable

Switzerland

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018	Not applicable
Storage of Hazardous Material	SC 6.1
WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20	Not applicable
Major Accidents Ordinance SR 814.012	Not applicable

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Noradrenaline - 51-41-2	75	

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

H1 - ACUTE TOXIC

H2 - ACUTE TOXIC

Ozone-depleting substances (ODS) regulation (EC) 2024/590

Not applicable

International Inventories

TSCA

U.S. INVENTORY (TSCA): Not listed on inventory. For purposes of 40 CFR 720.36, this product is for Research and Development (R&D) Use Only

DSL/NDSL

Contact supplier for inventory compliance status

EINECS/ELINCS

Contact supplier for inventory compliance status

ENCS

Contact supplier for inventory compliance status

IECSC

Contact supplier for inventory compliance status

KECL

Contact supplier for inventory compliance status

PICCS

Contact supplier for inventory compliance status

AIIC

Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing Chemicals Inventory



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report

A Chemical Safety Assessment is not required for this substance

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

H300 - Fatal if swallowed

H301 - Toxic if swallowed

H302 - Harmful if swallowed

H310 - Fatal in contact with skin

H312 - Harmful in contact with skin

H330 - Fatal if inhaled

H331 - Toxic if inhaled

H332 - Harmful if inhaled

H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child

H371 - May cause damage to organs

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P321 - Specific treatment (see supplemental first aid instructions on this label)

P330 - Rinse mouth

P405 - Store locked up

P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable

P262 - Do not get in eyes, on skin, or on clothing

P280 - Wear protective gloves, protective clothing, eye protection and face protection

P302 + P352 - IF ON SKIN: Wash with plenty of water and soap

P310 - Immediately call a POISON CENTER or doctor

P361 + P364 - Take off immediately all contaminated clothing and wash it before reuse

P260 - Do not breathe dust, fume, gas, mist, vapors and spray

P271 - Use only outdoors or in a well-ventilated area

P284 - In case of inadequate ventilation wear respiratory protection

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P320 - Specific treatment is urgent (see supplemental first aid instructions on this label)

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Legend

ACGIH

American Conference of Governmental Industrial Hygienists



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

AIDII	Italian Association of Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DFG	German Research Foundation
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECHA	European Chemicals Agency
EC Number	European Community number
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	Environmental Protection Agency
EWC	European Waste Codes
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organisation
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organisation for Standardisation
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MAL	Measuring Technical Hygienic Air Needs
MARPOL	International Convention for the Prevention of Pollution from Ships
MDLPS	Ministry of Labour and Social Policy
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TRGS	Technical Rule for Hazardous Substances
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
Sen+	Sensitiser
Sk*	Skin designation
**	Hazard Designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 16-Dec-2025

Reason for revision Section 3 Precautionary statements Personal protection

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



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 16-Dec-2025

Revision Number 2.01

CAT 1251 - adrenaline impurity standard

Disclaimer

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. British Pharmacopoeia Commission Office makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

End of Safety Data Sheet