



SAFETY DATA SHEET

1. Identification

Product identifier	REYVOW™	
Other means of identification		
Item Code	702581, 701681, 701682, ZD4491, ZD4312, 701312, 701295, 701313, ZD2103, TA4736, ZD2102, TA4491, ZD2101, TA4312, 701282, 701172, 701181, 701180, 701062, 701063, 701095, 701096	
LY Number	LY573144	
Recommended use	Pharmaceutical	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	Eli Lilly and Company	
Address	Lilly Corporate Center Indianapolis, IN 46285 United States	
Telephone	Phone:	+1-317-276-2000
E-mail	lilly_sds@lilly.com	
Emergency phone number	CHEMTREC:	+1-800-424-9300

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Serious eye damage/eye irritation	Category 1
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H361	Suspected of damaging the unborn child.
H336	May cause drowsiness or dizziness.

Precautionary statement

Prevention

P201	Obtain special instructions before use.
P261	Avoid breathing dust.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P330	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P310	

P304 + P340 +
P311

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical assistance.

Storage

P403 + P233
P405

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal

P501

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

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Lasmiditan Hemisuccinate	Lasmiditan Hemisuccinate Milled IUPAC: 2,4,6-trifluoro-N-(6-(1-methylpiperidine-4-carbonyl)pyridine-2-yl)benzamide Butanedioic acid, compd. with 2,4,6-trifluoro-N-[6-[(1-methyl-4-piperidiny)carbonyl]-2-pyridinyl]benzamide (1:2) 573144 1/2 Succinate LY573144 Hemisuccinate	439239-92-6	51.4

Composition comments

Remaining components of this product are non-hazardous and/or are present at concentrations below reportable levels.

4. First-aid measures

Inhalation

Remove to fresh air. If breathing stops, provide artificial respiration. Get medical attention immediately.

Skin contact

Wash off immediately with plenty of water. Continue to rinse for at least 15 minutes. Immediately take off all contaminated clothing. Get medical attention if irritation develops and persists.

Eye contact

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion

Immediately give large quantities of water to drink. Never give anything by mouth to a victim who is unconscious or is having convulsions. Call a physician immediately.

Most important symptoms/effects, acute and delayed

Harmful if swallowed. Causes serious eye damage. May cause developmental effects based on animal data. May cause drowsiness or dizziness.

Indication of immediate medical attention and special treatment needed

None known

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Use water spray to cool unopened containers.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection. See Section 8 of the SDS for Personal Protective Equipment.

Methods and materials for containment and cleaning up

Do not sweep. Collect spill using a vacuum cleaner with a HEPA filter. Be aware of potential for dust explosion when using electrical equipment. If vacuum is not available, lightly mist/wet material and remove by mopping or wet wiping.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Minimize dust generation and accumulation. Keep away from heat and sources of ignition. Avoid contact with eyes, skin, and clothing. See Section 8 of the SDS for Personal Protective Equipment.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection**Occupational exposure limits****Lilly (LEG) Components****Type****Value**

Lasmiditan Hemisuccinate
(CAS 439239-92-6)

TWA (12hrs)

25 ug/m3

TWA (8hrs)

40 ug/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

The recommendations in this section are intended for manufacturing or other situations where exposure to contents may occur.

Open handling is not recommended. Use appropriate control measures such as fume hood, ventilated enclosure, local exhaust ventilation, or down-draft booth.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Safety glasses with side shields recommended. If splash potential or dusty operations, wear goggles/faceshield.

Skin protection**Hand protection**

Chemical resistant gloves.

Other

Chemical-resistant gloves and impermeable body covering to minimize skin contact.

Respiratory protection

If the applicable occupational exposure level (OEL) is anticipated to be exceeded, wear an approved respirator with sufficient protection factor to control exposure below the OEL.

General hygiene considerations

Engineering controls should be used as the primary means to control workplace exposures. Follow good workplace hygiene practices such as washing hands after handling this material.

9. Physical and chemical properties**Appearance****Physical state**

Solid.

Form

Tablet.

Color

White or Grey White or Purple Grey or Grey

Odor

Not available.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	Not water reactive.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing substances.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Acute toxicity Harmful if swallowed.

Components	Species	Test Results
Lasmiditan Hemisuccinate (CAS 439239-92-6)		
<u>Acute</u>		
Oral		
LD50	Rat	> 300 mg/kg (estimated, 4-5 day study) (Convulsions and/or mortality)
Skin corrosion/irritation	Epiderm (TM) Skin Irritation: Non-irritant (Lasmiditan Hydrochloride) Epiderm (TM) Corrosivity: Non-corrosive (Lasmiditan Hydrochloride) Based on available data, the classification criteria are not met.	
Serious eye damage/eye irritation	Bovine Corneal Opacity and Permeability assay: Severe eye irritation. (Lasmiditan Hemisuccinate)	
Respiratory or skin sensitization		
Respiratory sensitization	Due to lack of data the classification is not possible.	
Skin sensitization	Due to lack of data the classification is not possible.	
Germ cell mutagenicity	In vitro and in vivo tests did not show mutagenic effects. (Lasmiditan Hemisuccinate) Based on available data, the classification criteria are not met.	
Carcinogenicity	Not carcinogenic in a two-year rat carcinogenicity study or a 6-month transgenic mouse study. Not listed by IARC, NTP, ACGIH or OSHA. (Lasmiditan Hemisuccinate) Based on available data, the classification criteria are not met.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		

Reproductive toxicity	There were no effects on male or female fertility in studies with rats. In embryofetal development studies (rats, rabbits), fetal development was delayed (decreased fetal body weights and skeletal variations) at maternally toxic doses. In rabbits, a slight increase in embryofetal mortality and a low incidence of fetal malformations occurred in a single study at a maternally toxic dose. Oral administration of lasmiditan to rats throughout pregnancy and lactation resulted in increases in stillbirth and neonatal mortality at the highest dose tested, which was associated with maternal toxicity and delayed parturition. (Lasmiditan Hemisuccinate)
Specific target organ toxicity - single exposure	Drowsiness and dizziness have been reported during therapeutic administration of Lasmiditan Hemisuccinate
Specific target organ toxicity - repeated exposure	Nervous system effects were reported in animal studies after repeated exposure to high doses. Kidney and heart effects were reported in rats after repeated exposure to high doses. These effects were considered to be specific to rats only. (Lasmiditan Hemisuccinate) Based on available data, the classification criteria are not met.
Aspiration hazard	Not applicable.

12. Ecological information

Ecotoxicity Toxic to aquatic life.

Components		Species	Test Results
Lasmiditan Hemisuccinate (CAS 439239-92-6)			
Other	EC50	Pseudokirchnerella subcapitata	7.4 mg/l, 72 h (OECD 201) 4.3 mg/l, 72 h (OECD 201)
	LOEC	Pseudokirchnerella subcapitata	3.9 mg/l, 72 h (OECD 201) (yield and growth rate)
	NOEC	Pseudokirchnerella subcapitata	1.5 mg/l, 72 h (OECD 201) (yield and growth rate)
Aquatic			
Crustacea	EC50	Daphnia magna	17 mg/l, 48 h (OECD 202)
	LOEC	Daphnia magna	5.4 mg/l, 21 d (OECD 211) 4.3 mg/l, 48 h (OECD 202)
	NOEC	Daphnia magna	2.7 mg/l, 21 d (OECD 211)
Fish	EC50	Fathead minnow (Pimephales promelas)	72 mg/l, 96 h (OECD 203)
	LOEC	Fathead minnow (Pimephales promelas)	27 mg/l, 96 h (OECD 203) 10 mg/l, 28 d (OECD 210)
	NOEC	Fathead minnow (Pimephales promelas)	5.2 mg/l, 28 d (OECD 210)
Other	EC50	Sewage Microorganisms	279 mg/l, 3 h (OECD 209) 15.6 mg/l, 3 h (OECD 209)
	LOEC	Sewage Microorganisms	100 mg/l, 3 h (OECD 209)(heterotrophic) 1 mg/l, 3 h (OECD 209)(nitrification)
	NOEC	Sewage Microorganisms	10 mg/l, 3 h (OECD 209) (nitrification) 0.1 mg/l, 3 h (OECD 209) (heterotrophic)

A LAEG is the maximum allowable concentration at the point of application that is expected to result in no appreciable risk to populations of aquatic and terrestrial organisms, or to human health.

LILLY AQUATIC EXPOSURE GUIDELINES:

Lasmiditan Hemisuccinate

Acute LAEG (at the edge of the acute mixing zone):	13 µg/l
Chronic LAEG (at the edge of the chronic mixing zone):	27 µg/l
Drinking water LAEG (at the point where surface water is taken for drinking water):	654 µg/l

Persistence and degradability Hydrolysis half-life: (in days) pH 4,7,9 stable
Biodegradation: 56% in 28 days. (OECD 302A)
DT50: 13.25 Days (OECD 302A)
Biodegradation: 57% in 28 days. (OECD 314B)
DT50: 14.11 Days (OECD 314B)
Degradation in aquatic sediment: 100 Days
DT50: 3.78 to 6.22 Days (water layer)
DT50: 148 to 222 Days (total system)
Dissociation constant (pKa): 9.0, 10.7

Bioaccumulative potential log Kow: < 4.
Partition coefficient n-octanol / water (log Kow)
Lasmiditan Hemisuccinate < 0, (-0.561, pH4)
0.978, (pH 7)
2.77, (pH 9)

Mobility in soil Adsorption (sludge) Koc: 81 to 234 l/kg
Adsorption (soil) Koc: 14280 to 28595 l/kg

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Dispose in accordance with all applicable regulations.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories

Acute toxicity (any route of exposure)
Serious eye damage or eye irritation
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	10-11-2019
Revision date	09-16-2020
Version #	04

List of abbreviations	ACGIH: American Conference of Governmental Industrial Hygienists. DOT: Department of Transportation (49 CFR 172.101). EC50: Effective Concentration 50%. EINECS: European Inventory of Existing Commercial Chemical Substances. GHS: Globally Harmonized System of Classification and Labeling of Chemicals. IATA: International Air Transport Association. IMDG Code: International Maritime Dangerous Goods Code. LC50: Lethal Concentration 50%. LD50: Lethal Dose 50%. LEG: Lilly Exposure Guideline. MARPOL: International Convention for the Prevention of Pollution from Ships. NOEC: No observed effect concentration. NTP: National Toxicology Program. OSHA: Occupational Safety & Health Administration. TWA: Time Weighted Average Value.
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Disclaimer	As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.
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For additional information contact:
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Revision information	First-aid measures: General information Stability and reactivity: Conditions to avoid Ecological information: Ecotoxicity Ecological information: Persistence / degradability Ecological information: Bioaccumulative potential Ecological information: Mobility in soil GHS: Classification
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