

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

## SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic in



## **Isovitexin**

#### sc-235430

### **Material Safety Data Sheet**



The Power to Quantie

Hazard Alert Code Key:

EXTREME

HIGH

MODERATE

LOW

#### Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT NAME

Isovitexin

#### STATEMENT OF HAZARDOUS NATURE

CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

# FLAMM ABILITY HEALT H. XARD INSTABILITY

#### **SUPPLIER**

Santa Cruz Biotechnology, Inc. 2145 Delaware Avenue Santa Cruz, California 95060 800.457.3801 or 831.457.3800

#### **EMERGENCY**

ChemWatch

Within the US & Canada: 877-715-9305 Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

#### **SYNONYMS**

C21H20O10, "for C6-isomer", "4H-1-benzopyran-4-one, 6-beta-D-glucopyranosyl-", "5, 7-dihydroxy-4-(4-hydroxyphenyl)-", "flavone, 6-beta-glucopyranosyl-4' , 5, 7-trihydroxy-", homovitexin, saponaretin, "for C8-isomer", "4H-1-benzopyran-4-one, 8-beta-D-glucopyranosyl-", "flavone, 8-beta-glucopyranosyl-4' , 5, 7-trihydroxy-", flavanoid

#### **Section 2 - HAZARDS IDENTIFICATION**

#### **CHEMWATCH HAZARD RATINGS**

|                     |   | Min | Max                |
|---------------------|---|-----|--------------------|
| Flammability        | 1 |     |                    |
| Toxicity            | 0 |     | Mar All O          |
| <b>Body Contact</b> | 0 |     | Min/Nil=0<br>Low=1 |
| Reactivity          | 1 |     | Moderate=2         |
|                     |   |     | High=3             |
|                     |   |     | Extreme=4          |

#### **CANADIAN WHMIS SYMBOLS**



# EMERGENCY OVERVIEW RISK

#### POTENTIAL HEALTH EFFECTS

#### **ACUTE HEALTH EFFECTS**

#### **SWALLOWED**

■ The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion".

This is because of the lack of corroborating animal or human evidence.

#### FVE

■ Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.

#### SKIN

■ The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models).

Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

- Open cuts, abraded or irritated skin should not be exposed to this material.
- Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.

Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

#### **INHALED**

■ The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models).

Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

■ Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.

#### **CHRONIC HEALTH EFFECTS**

■ Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.

Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray.

Flavonoids, which are found in a range of foods and medicines, have been shown to cause leukaemia in infancy, but, if taken at high levels in the diet, they reduce the risk of breast and prostate cancer.

#### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME CAS RN %

isovitexin 38953-85-4 >98

#### **Section 4 - FIRST AID MEASURES**

#### **SWALLOWED**

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

#### **EYE**

If this product comes in contact with eyes

- Wash out immediately with water.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

#### SKIN

If skin or hair contact occurs

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

#### **INHALED**

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

#### **NOTES TO PHYSICIAN**

■ Treat symptomatically.

| Section 5 - FIRE FIGHTING MEASURES |                |  |  |
|------------------------------------|----------------|--|--|
| Vapour Pressure (mmHG)             | Negligible     |  |  |
| Upper Explosive Limit (%)          | Not available. |  |  |
| Specific Gravity (water=1)         | Not available  |  |  |
| Lower Explosive Limit (%)          | Not available  |  |  |

#### **EXTINGUISHING MEDIA**

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

#### **FIRE FIGHTING**

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use water delivered as a fine spray to control fire and cool adjacent area.

#### GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

- Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.
- Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an
  explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust
  clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420
  micron or less) may burn rapidly and fiercely if ignited particles exceeding this limit will generally not form
  flammable dust clouds.; once initiated, however, larger particles up to 1400 microns diameter will contribute to
  the propagation of an explosion.
- In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL).are

applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC)

• A dust explosion may release of large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people.

Combustion products include carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

#### FIRE INCOMPATIBILITY

 Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

#### Section 6 - ACCIDENTAL RELEASE MEASURES

#### **MINOR SPILLS**

- · Clean up all spills immediately.
- Avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.

#### **MAJOR SPILLS**

Moderate hazard.

- CAUTION Advise personnel in area.
- Alert Emergency Services and tell them location and nature of hazard.
- · Control personal contact by wearing protective clothing.
- Prevent, by any means available, spillage from entering drains or water courses.

#### **Section 7 - HANDLING AND STORAGE**

#### PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source.

- Do NOT cut, drill, grind or weld such containers.
- In addition ensure such activity is not performed near full, partially empty or empty containers without appropriate workplace safety authorisation or permit.

#### RECOMMENDED STORAGE METHODS

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

#### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

#### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **EXPOSURE CONTROLS**

| Course | Material | TWA TWA   | STEL STEL   | Peak Peak   | TWA Notes         |
|--------|----------|-----------|-------------|-------------|-------------------|
| Source | Material | ppm mg/m³ | ³ ppm mg/m³ | ³ ppm mg/m³ | TWA<br>F/CC Notes |

| Canada - Ontario<br>Occupational<br>Exposure Limits                                   | isovitexin<br>(Particles<br>(Insoluble or<br>Poorly Soluble)<br>Not Otherwise)                     | 10 (I) |   |
|---|--|--------|---|
| Canada - British<br>Columbia<br>Occupational<br>Exposure Limits                       | isovitexin (Particles (Insoluble or Poorly Soluble) Not Otherwise Classified (PNOC))               | 10 (N) |   |
| Canada - Ontario<br>Occupational<br>Exposure Limits                                   | isovitexin (Specified (PNOS) / Particules (insolubles ou peu solubles) non précisées par ailleurs) | 3 (R)  |   |
| US - Tennessee<br>Occupational<br>Exposure Limits -<br>Limits For Air<br>Contaminants | isovitexin (Particulates not otherwise regulated Respirable fraction)                              | 5      |   |
| US - California<br>Permissible<br>Exposure Limits<br>for Chemical<br>Contaminants     | isovitexin (Particulates not otherwise regulated Respirable fraction)                              | 5      | (n)   |
| US - Oregon<br>Permissible<br>Exposure Limits<br>(Z-1)                                | isovitexin (Particulates not otherwise - regulated (PNOR) (f) Total Dust)                          | 10     | Bold print identifies substances for which the Oregon Permissible Exposure Limits (PELs) are different than the federal Limits. PNOR means "particles not otherwise regulated." |
| US - Michigan<br>Exposure Limits<br>for Air<br>Contaminants                           | isovitexin<br>(Particulates not<br>otherwise<br>regulated,<br>Respirable dust)                     | 5      |   |
| US - Oregon<br>Permissible<br>Exposure Limits<br>(Z-1)                                | isovitexin<br>(Particulates not<br>otherwise<br>regulated (PNOR)<br>(f) Respirable<br>Fraction)    | 5      | Bold print identifies substances for which the Oregon Permissible Exposure Limits (PELs) are different than the federal Limits. PNOR means "particles not otherwise regulated." |

US - Wyoming isovitexin

Toxic and (Particulates not otherwise

Hazardous
Substances Table
Z1 Limits for Air

Virial Wise
regulated
(PNOR)(f)-

Z1 Limits for Air Contaminants

Respirable fraction)

#### PERSONAL PROTECTION



#### **RESPIRATOR**

Particulate. (AS/NZS 1716 & 1715, EN 1432000 & 1492001, ANSI Z88 or national equivalent)

5

#### **EYE**

- Safety glasses with side shields
- · Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

#### HANDS/FEET

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include

- · frequency and duration of contact,
- · chemical resistance of glove material,
- glove thickness and
- dexterity

Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.

- polychloroprene
- nitrile rubber
- butyl rubber
- fluorocaoutchouc

#### OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

#### **ENGINEERING CONTROLS**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

#### **Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

#### **PHYSICAL PROPERTIES**

Solid.

Does not mix with water.

| State                     | Divided solid  | Molecular Weight                | 432.38          |
|---------------------------|----------------|---------------------------------|-----------------|
| Melting Range (°F)        | Not available  | Viscosity                       | Not Applicable  |
| Boiling Range (°F)        | Not available  | Solubility in water (g/L)       | Partly miscible |
| Flash Point (°F)          | Not available  | pH (1% solution)                | Not applicable  |
| Decomposition Temp (°F)   | Not available. | pH (as supplied)                | Not applicable  |
| Autoignition Temp (°F)    | Not available  | Vapour Pressure (mmHG)          | Negligible      |
| Upper Explosive Limit (%) | Not available. | Specific Gravity (water=1)      | Not available   |
| Lower Explosive Limit (%) | Not available  | Relative Vapour Density (air=1) | Not Applicable  |
| Volatile Component (%vol) | Negligible     | Evaporation Rate                | Not applicable  |

#### **APPEARANCE**

Solid; does not mix well with water.

#### **Section 10 - CHEMICAL STABILITY**

#### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

#### STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents

For incompatible materials - refer to Section 7 - Handling and Storage.

#### **Section 11 - TOXICOLOGICAL INFORMATION**

isovitexin

# TOXICITY AND IRRITATION ISOVITEXIN

No significant acute toxicological data identified in literature search.

#### **Section 12 - ECOLOGICAL INFORMATION**

No data

#### Section 13 - DISPOSAL CONSIDERATIONS

#### **Disposal Instructions**

All waste must be handled in accordance with local, state and federal regulations.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling

• Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. In most instances the supplier of the material should be consulted.

- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered
  first
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

#### **Section 14 - TRANSPORTATION INFORMATION**

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: DOT, IATA, IMDG

#### Section 15 - REGULATORY INFORMATION

#### iisovitexin (CAS: 38953-85-4,55555-34-5) is found on the following regulatory lists;

"Canada - Alberta Ambient Air Quality Guidelines", "Canada - Alberta Ambient Air Quality Objectives", "Canada - British Columbia Occupational Exposure Limits", "Canada - Ontario Occupational Exposure Limits", "Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)", "Canada National Pollutant Release Inventory (NPRI)", "US - California Permissible Exposure Limits for Chemical Contaminants", "US - Michigan Exposure Limits for Air Contaminants", "US - Oregon Permissible Exposure Limits (Z-1)", "US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants", "US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants", "US Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS)"

#### Section 16 - OTHER INFORMATION

#### LIMITED EVIDENCE

- Cumulative effects may result following exposure\*.
- Limited evidence of a carcinogenic effect\*.
- \* (limited evidence).

#### Ingredients with multiple CAS Nos

Ingredient Name

CAS

isovitexin

38953-85-4, 55555-34-5

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- Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.
- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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