

# 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

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# Neohesperidin dihydrochalcone



#### **SYNONYMS**

C28-H36-O15, 1-(4-((2-O-[6-deoxy-alpha-L-mannopyranosyl]-beta-D-, "glucopyranosyl)oxy)-2, 6-dihydroxyphenyl)-3-[3-hydroxy-4-methoxyphenyl]-", 1-propanone, "3, 5-dihydroxy-4-(3-hydroxy-4-methoxyhydrocinnamoyl)phenyl-2-O-(6-", deoxy-alpha-L-mannopyranosyl)-beta-D-glucopyranoside, "neohesperidine DC", "neohesperidin dihydrochalcone", NHDC, Sukor, "artificial sweetener", "E 959", "flavonoid dihdyrochalcone"

#### Section 2 - HAZARDS IDENTIFICATION

#### **CHEMWATCH HAZARD RATINGS**



#### 1 of 7

# $\bigcirc$

## EMERGENCY OVERVIEW

RISK

Harmful if swallowed. Possible risk of irreversible effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

#### SWALLOWED

• Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

#### EYE

• Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn).

Slight abrasive damage may also result.

#### SKIN

Skin contact is not thought to produce harmful health effects (as classified using animal models).

Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions.

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 either adverse health effects or irritation of the respiratory tract following inhalation (as classified using animal models).

Nevertheless, adverse effects have been produced following exposure of animals by at least one other route and 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.

#### **CHRONIC HEALTH EFFECTS**

■ Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified using animal models); nevertheless exposure by all routes should be minimized as a matter of course.

Strong evidence exists that the substance may cause irreversible but non-lethal mutagenic effects following a single exposure.

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.

### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
neohesperidine dihydrochalcone	20702-77-6	>98

#### Section 4 - FIRST AID MEASURES

#### **SWALLOWED**

· IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. · Where Medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:

#### EYE

■ If this product comes in contact with the eyes: · Wash out immediately with fresh running water. · Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

#### 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 fumes or combustion products are inhaled remove from contaminated area. · Other measures are usually unnecessary.

#### NOTES TO PHYSICIAN

■ for poisons (where specific treatment regime is absent):

-----BASIC TREATMENT

· Establish a patent airway with suction where necessary.

· Watch for signs of respiratory insufficiency and assist ventilation as necessary. Treat symptomatically.

meat 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

 $\cdot$  Water spray or fog.

#### · Foam.

#### FIRE FIGHTING

· Alert Emergency Responders and tell them location and nature of hazard.

· Wear breathing apparatus plus protective gloves for fire only.

When any large container (including road and rail tankers) is involved in a fire,

consider evacuation by 100 metres in all directions.

# GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

· Not considered to be a significant fire risk, however containers may burn.

FIRE INCOMPATIBILITY

None known.

#### PERSONAL PROTECTION

Glasses: Chemical goggles. Gloves: Respirator: Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

#### MINOR SPILLS

- · Remove all ignition sources.
- · Clean up all spills immediately.
- · Avoid contact with skin and eyes.
- · Control personal contact by using protective equipment.
- · Use dry clean up procedures and avoid generating dust.
- · Place in a suitable, labelled container for waste disposal.
- Environmental hazard contain spillage.

MAJOR SPILLS

Environmental hazard - contain spillage.

- Moderate hazard.
- · CAUTION: Advise personnel in area.

· Alert Emergency Responders and tell them location and nature of hazard.

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

#### **PROCEDURE FOR HANDLING**

· Avoid all personal contact, including inhalation.

 $\cdot$  Wear protective clothing when risk of exposure occurs.

#### **RECOMMENDED STORAGE METHODS**

· Polyethylene or polypropylene container.

· Check all containers are clearly labelled and free from leaks.

#### STORAGE REQUIREMENTS

■ Observe manufacturer's storing and handling recommendations. Store at -20° C.

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

#### EXPOSURE CONTROLS

The following materials had no OELs on our records • neohesperidine dihydrochalcone: CAS:20702-77-6

#### PERSONAL PROTECTION



#### RESPIRATOR

•Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent) EYE

- · Safety glasses with side shields
- · Chemical goggles.

#### HANDS/FEET

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

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

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.

When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.

· Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

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
- · polyvinyl chloride

Gloves should be examined for wear and/ or degradation constantly.

#### OTHER

- · Overalls.
- · P.V.C. apron.
- · Barrier cream.
- · Skin cleansing cream.
- · Eye wash unit.

#### **ENGINEERING CONTROLS**

· Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.

· If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.

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

#### PHYSICAL PROPERTIES

Mixes with water.			
State	Divided Solid	Molecular Weight	612.58
Melting Range (°F)	313- 316	Viscosity	Not Applicable
Boiling Range (°F)	Not Applicable	Solubility in water (g/L)	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 Vapor Density (air=1)	Not Applicable
Volatile Component (%vol)	Negligible	Evaporation Rate	Not Applicable

#### **APPEARANCE**

Crystalline solid; mixes with water. Atable in solid form and in aqueous solutions of pH 1-7 ( $t_2 > 1$  year, 20 deg C). It is heat stable and can therefore be used in foods requiring pasteurization or UHT processes. At high concentrations, NHDC exhibits a long-lasting sweetness associated with a menthol-, or licorice-like aftertaste. Therefore,NHDC is typically used in mixture with other low-calorie or bulk sweetners.

#### Section 10 - CHEMICAL STABILITY

#### CONDITIONS CONTRIBUTING TO INSTABILITY

Presence of incompatible materials.
 Product is considered stable.

#### STORAGE INCOMPATIBILITY

#### None known.

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

#### Section 11 - TOXICOLOGICAL INFORMATION

neohesperidine dihydrochalcone

## TOXICITY AND IRRITATION

#### NEOHESPERIDINE DIHYDROCHALCONE:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances. The Acceptable Daily Intake (ADI) for neohesperidine DC has been set at 0-5 mg/kg body weight by SCF (Scientific Committee of Food

(EFSA) of the EU.

#### Section 12 - ECOLOGICAL INFORMATION

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. This material and its container must be disposed of as hazardous waste. Avoid release to the environment.

Refer to special instructions/ safety data sheets.

#### Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
neohesperidine dihydrochalcone	HIGH	No Data Available	LOW	MED

#### Section 13 - DISPOSAL CONSIDERATIONS

#### **Disposal Instructions**

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

Puncture containers to prevent re-use and bury at an authorized landfill.

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.

DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.

 $\cdot$  Recycle wherever possible or consult manufacturer for recycling options.

 $\cdot$  Consult Waste Management Authority for disposal.

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



DOT: Symbols: G Hazard class or Division: 9 Identification Numbers: UN3077 PG: III Label Codes: 9 Special provisions: 8, 146, 335, B54, IB8. IP3. N20, T1, TP33 Packaging: Exceptions: 155 Packaging: Non- bulk: 213 Packaging: Exceptions: 155 Quantity limitations: No limit Passenger aircraft/rail: Quantity Limitations: Cargo No limit Vessel stowage: Location: A aircraft only: Vessel stowage: Other: None Hazardous materials descriptions and proper shipping names: Environmentally hazardous substance, solid, n.o.s Air Transport IATA: UN/ID Number: 3077 Packing Group: III Special provisions: A97 Cargo Only Packing Instructions: 956 Maximum Qty/Pack: 400 kg Passenger and Cargo Passenger and Cargo Packing Instructions: Y956 Maximum Qty/Pack: 400 kg Passenger and Cargo Limited Quantity Passenger and Cargo Limited Quantity Packing Instructions: 956 Maximum Qty/Pack: 30 kg G

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. \*(CONTAINS NEOHESPERIDINE DIHYDROCHALCONE)

#### Maritime Transport IMDG:

IMDG Class: 9 IMDG Subrisk: None UN Number: 3077 Packing Group: III EMS Number: F-A,S-F Special provisions: 274 335 Limited Quantities: 5 kg Marine Pollutant: Yes Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(contains neohesperidine dihydrochalcone)

#### Section 15 - REGULATORY INFORMATION

**neohesperidine dihydrochalcone (CAS: 20702-77-6) is found on the following regulatory lists;** "International Fragrance Association (IFRA) Survey: Transparency List", "US Food Additive Database"

#### **Section 16 - OTHER INFORMATION**

Denmark Advisory list for selfclassification of dangerous substances Substance CAS Suggested codes neohesperidine dihydrochalcone 20702- 77- 6 Mut3; R68 N; R50/53

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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. Risks may be determined by reference to Exposures Scenarios.

Scale of use, frequency of use and current or available engineering controls must be considered.

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