SIGMA-ALDRICH

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SAFETY DATA SHEET

Version 5.2 Revision Date 06/28/2014 Print Date 10/31/2018

1. PRODUCT AND COMPANY IDENTIFICATION						
1.1	Product identifiers Product name	[:] Chondroitin disaccharide Δdi-4S sodium salt				
	Product Number Brand	: C4045 : Sigma				
	CAS-No.	: 136144-56-4				
1.2	Relevant identified uses of the substance or mixture and uses advised against					
	Identified uses	: Laboratory chemicals, Manufacture of substances				
1.3	Details of the supplier of the safety data sheet					
	Company	: Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA				
	Telephone Fax	: +1 800-325-5832 : +1 800-325-5052				
1.4 Emergency telephone number						
	Emergency Phone #	: +1-703-527-3887 (CHEMTREC)				
2. H/	ZARDS IDENTIFICATION					
2.1	2.1 Classification of the substance or mixture					
	Not a hazardous substance or mixture.					
2.2	cluding precautionary statements					
	Not a hazardous substar	ce or mixture.				
2.3	Hazards not otherwise classified (HNOC) or not covered by GHS - none					
3. CO	OMPOSITION/INFORMATI	ON ON INGREDIENTS				
3.1	Substances Synonyms	: α - Δ UA-[1 \rightarrow 3]-GalNAc-4S				
	Formula	: C ₁₄ H ₁₉ NNa ₂ O ₁₄ S				
	Molecular Weight CAS-No.	: 503.34 g/mol : 136144-56-4				
	No ingredients are hazardous according to OSHA criteria. No components need to be disclosed according to the applicable regulations.					
4. Fl	RST AID MEASURES					
4.1	Description of first aid	neasures				

lf inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- **5.2** Special hazards arising from the substance or mixture Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Sodium oxides
- **5.3** Advice for firefighters Wear self contained breathing apparatus for fire fighting if necessary.
- 5.4 Further information no data available

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.
- 6.2 Environmental precautions Do not let product enter drains.
- **6.3** Methods and materials for containment and cleaning up Sweep up and shovel. Keep in suitable, closed containers for disposal.
- **6.4 Reference to other sections** For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: solid
b)	Odour	no data available
c)	Odour Threshold	no data available
d)	рН	no data available
e)	Melting point/freezing point	no data available
f)	Initial boiling point and boiling range	no data available
g)	Flash point	no data available
h)	Evapouration rate	no data available
i)	Flammability (solid, gas)	no data available
j)	Upper/lower flammability or explosive limits	no data available
k)	Vapour pressure	no data available
I)	Vapour density	no data available
m)	Relative density	no data available
n)	Water solubility	no data available
o)	Partition coefficient: n- octanol/water	no data available
p)	Auto-ignition temperature	no data available
q)	Decomposition temperature	no data available
r)	Viscosity	no data available
s)	Explosive properties	no data available
t)	Oxidizing properties	no data available
- C40	45	

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

- **10.2 Chemical stability** Stable under recommended storage conditions.
- **10.3 Possibility of hazardous reactions** no data available
- **10.4 Conditions to avoid** no data available
- **10.5** Incompatible materials no data available
- **10.6 Hazardous decomposition products** In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

Inhalation: no data available

Dermal: no data available

no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitisation no data available

Germ cell mutagenicity Carcinogenicity

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

no data available

Specific target organ toxicity - single exposure no data available

Specific target organ toxicity - repeated exposure no data available

Aspiration hazard

no data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

- 12.2 Persistence and degradability no data available
- 12.3 Bioaccumulative potential no data available
- 12.4 Mobility in soil no data available
- Results of PBT and vPvB assessment 12.5 PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US) Not dangerous goods

IMDG Not dangerous goods

ΙΑΤΑ

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Chondroitin disaccharide δdi-4S sodium salt	136144-56-4	
Sigma - C4045		

Sigma - C4045

New Jersey Right To Know Components

CAS-No. 136144-56-4 Revision Date

Chondroitin disaccharide Sdi-4S sodium salt

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating	
Health hazard:	0
Chronic Health Hazard:	
Flammability:	0
Physical Hazard	0
-	
NFPA Rating	
Health hazard:	0
Fire Hazard:	0
Reactivity Hazard:	0

Further information

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Preparation Information

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

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