

D-Sucrose Apollo Scientific

Part Number: BIS3391 Version No: 1.1 Safety Data Sheet

Chemwatch Hazard Alert Code: 2

Issue Date: 26/09/2023 Print Date: 26/09/2023 S.GHS.GB-NIR.EN

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

Product Identifier

Product name	D-Sucrose
Chemical Name	sucrose
Synonyms	Not Available
Chemical formula	C12H22O11
Other means of identification	Not Available
CAS number	57-50-1*

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

Relevant identified uses

Not Available

Details of the manufacturer or supplier of the safety data sheet

Registered company name	Apollo Scientific	Apollo Scientific Itd		
Address	Whitefield Road, Bredbury SK62QR United Kingdom	Whitefield Road, Bredbury SK6 2QR Northern Ireland (UK)		
Telephone	01614060505	+44(0) 161 406 0505		
Fax	0161 406 0506	Not Available		
Website	http://www.apolloscientific.co.uk/	apolloscientific.co.uk		
Email	sales@apolloscientific.co.uk sales@apolloscientific.co.uk			

Emergency telephone number

Association / Organisation	Not Available	
Emergency telephone numbers	Not Available	
Other emergency telephone numbers	Not Available	

SECTION 2 Hazards identification

Classification of the substance or mixture

Classification according to	
regulation (EC) No	H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2, H335 - Specific Target Organ
1272/2008 [CLP] and	Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3
amendments [1]	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

D-Sucrose

Label elements

Hazard pictogram(s)	
Signal word	Warning

Hazard statement(s)

H315	Causes skin irritation.		
H319	Causes serious eye irritation.		
H335	May cause respiratory irritation.		

Precautionary statement(s) Prevention

P271	P271 Use only outdoors or in a well-ventilated area.		
P261 Avoid breathing dust/fumes.			
P280 Wear protective gloves, protective clothing, eye protection and face protection.			
P264	Wash all exposed external body areas thoroughly after handling.		

Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.			
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.			
P337+P313	If eye irritation persists: Get medical advice/attention.			
P302+P352	IF ON SKIN: Wash with plenty of water.			
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.			
P332+P313	If skin irritation occurs: Get medical advice/attention.			
P362+P364	Take off contaminated clothing and wash it before reuse.			

Precautionary statement(s) Storage

P405	Store locked up.	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.	

Precautionary statement(s) Disposal

P501

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

CAS No		%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor
Legend:	1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties			L; * EU IOELVs	

Mixtures

See section above for composition of Substances

SECTION 4 First aid measures

Description of first aid measures Eye Contact 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. • Seek medical attention without delay; if pain persists or recurs seek medical attention.

Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact	If skin or hair contact occurs: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.

Advice for firefighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	 Non combustible. Not considered a significant fire risk, however containers may burn. May emit corrosive fumes.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

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. Sweep up, shovel up or Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Place spilled material in clean, dry, sealable, labelled container.
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. Recover product wherever possible. IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal.

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		down with large amounts of water and prev ains or waterways occurs, advise Emergenc	
Personal Protective Equipmen	t advice is contained in Secti	on 8 of the SDS.	
SECTION 7 Handling and	storage		
Precautions for safe han	dling		
Safe handling	 Wear protective clothi Use in a well-ventilate Prevent concentration DO NOT enter confine DO NOT allow materi Avoid contact with inc When handling, DO N Keep containers secu Avoid physical damage Always wash hands w Work clothes should b Use good occupationa Observe manufacture 	in hollows and sumps. ad spaces until atmosphere has been check al to contact humans, exposed food or food ompatible materials. OT eat, drink or smoke. rely sealed when not in use. te to containers. with soap and water after handling. be laundered separately. Launder contamina al work practice. r's storage and handling recommendations	utensils. ted clothing before re-use.
Other information	 Store away from incore Protect containers age Observe manufacture For major quantities: Consider storage in b stormwater, ground w 	rely sealed. ea protected from environmental extremes. npatible materials and foodstuff containers. ainst physical damage and check regularly f r's storage and handling recommendations	contained within this SDS. ated from sources of community water (including

• Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.

Conditions for safe storage, including any incompatibilities

Suitable container	 Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	None known

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3
D-Sucrose	Not Available	Not Available		Not Available
Ingredient	Original IDLH		Revised IDLH	
D-Sucrose	Not Available		Not Available	

Exposure controls

Appropriate e	engineeri
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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. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. 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. Such protection might consist of: (a): particle dust respirators, if necessary, combined with an absorption cartridge; (b): filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods or masks. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant. 			
	Type of Contaminant:			Air Speed:
controls	direct spray, spray painting in shallow booths, drum filling, discharge (active generation into zone of rapid air motion)		gas	1-2.5 m/s (200-500 f/min.)
	grinding, abrasive blasting, tumbling, high speed wheel ge velocity into zone of very high rapid air motion).	enerated dusts (released at high ini	itial	2.5-10 m/s (500-2000 f/min.)
	Within each range the appropriate value depends on:			
	Lower end of the range	Upper end of the range		
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents		
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity		
	3: Intermittent, low production.	3: High production, heavy use		
	4: Large hood or large air mass in motion	4: Small hood-local control only		
	Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metrod distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.			
Individual protection measures, such as personal protective equipment				
Eye and face protection	 Safety glasses with side shields. Chemical goggles. [AS/NZS 1337.1, EN166 or national Contact lenses may pose a special hazard; soft contact document, describing the wearing of lenses or restriction include a review of lens absorption and adsorption for t Medical and first-aid personnel should be trained in the event of chemical exposure, begin eye irrigation immed be removed at the first signs of eye redness or irritation have washed hands thoroughly. [CDC NIOSH Current I 	t lenses may absorb and concentra ons on use, should be created for e he class of chemicals in use and a ir removal and suitable equipment liately and remove contact lens as - lens should be removed in a clea	each workpla in account of should be re soon as pra	ce or task. This should injury experience. adily available. In the cticable. Lens should
Skin protection	See Hand protection below			
	The selection of suitable gloves does not only depend on the manufacturer to manufacturer. Where the chemical is a precommon to be calculated in advance and has therefore to be contracted break through time for substances has to be obtained by a final choice. Personal hygiene is a key element of effective hand care.	paration of several substances, the hecked prior to the application. ained from the manufacturer of the	e resistance protective g	of the glove material loves and has to be

Hands/feet protection Personal hygiene is a key element of effective hand care. 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.

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

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	D-Sucrose	
 When prolonged or greater than 240 min When only brief con according to EN 374 Some glove polymer long-term use. Contaminated glows As defined in ASTM Excellent when bree Good when breakth Fair when breakther Fair when breakther Poor when glove m For general applicatil It should be emphase permeation efficiency should also be based Glove thickness may manufacturers techn Note: Depending on Thinner gloves (down gloves are only likely) Thicker gloves (up is abrasion or punctue Gloves must only be non-perfumed moister Experience indicates where abrasive partities where abrasive partities abrasive partitie	bugh time < 20 min aterial degrades ons, gloves with a thickness typically greater than 0.35 mm, ar ised that glove thickness is not necessarily a good predictor of y of the glove will be dependent on the exact composition of th d on consideration of the task requirements and knowledge of ralso vary depending on the glove manufacturer, the glove typ ical data should always be taken into account to ensure select the activity being conducted, gloves of varying thickness may wn to 0.1 mm or less) may be required where a high degree of to give short duration protection and would normally be just for to 3 mm or more) may be required where there is a mechanica ire potential worn on clean hands. After using gloves, hands should be wa uriser is recommended. that the following polymers are suitable as glove materials for cles are not present.	ion class of 5 or higher (breakthrough time ivalent) is recommended. (breakthrough time greater than 60 minutes en into account when considering gloves for re recommended. i glove resistance to a specific chemical, as the re glove material. Therefore, glove selection breakthrough times. Therefore, glove selection breakthrough times. Therefore, the tion of the most appropriate glove for the task. be required for specific tasks. For example: manual dexterity is needed. However, these or single use applications, then disposed of. al (as well as a chemical) risk i.e. where there ashed and dried thoroughly. Application of a
Body protection See Other protection		

Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Respiratory protection

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1 -
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

· Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

 The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).

 Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.

· Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.

· Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

· Use approved positive flow mask if significant quantities of dust becomes airborne.

· Try to avoid creating dust conditions.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Not Available		
Physical state	Solid	Relative density (Water = 1)	1.58
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	185-190	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Not Available	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

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.
Ingestion	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.
Skin Contact	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.

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Eye	This material can cause eye irritation and damage in some persons.		
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.		
D.0	ΤΟΧΙΟΙΤΥ	IRRITATION	
D-Sucrose	TOXICITY Oral (Rat) LD50: 29700 mg/kg ^[2]	IRRITATION Not Available	

Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

Data available to make classification

D-Sucrose

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	¥	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	*
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

SECTION 12 Ecological information

	Endpoint	Test Duration (hr)	Species	Value	Source
D-Sucrose	NOEC(ECx)	48h	Fish	342.34mg/L	4
Legend:	4. US EPA, Eco	1. IUCLID Toxicity Data 2. Europe ECHA R tox database - Aquatic Toxicity Data 5. EC n Data 7. METI (Japan) - Bioconcentration	ETOC Aquatic Hazard Assessment Data 6		ntic Toxicit

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 Disposal considerations

Waste treatment methods

	Recycle wherever possible or consult manufacturer for recycling options.
Product / Packaging	 Consult State Land Waste Management Authority for disposal.
disposal	Bury residue in an authorised landfill.
	Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 Transport information

D-Sucrose

Marine Pollutant NO

Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group

14.7.3. Transport in bulk in accordance with the IGC Code

Product name

Ship Type

SECTION 15 Regulatory information

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

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Not Available
Canada - DSL	Not Available
Canada - NDSL	Not Available
China - IECSC	Not Available
Europe - EINEC / ELINCS / NLP	Not Available
Japan - ENCS	Not Available
Korea - KECI	Not Available
New Zealand - NZIoC	Not Available
Philippines - PICCS	Not Available
USA - TSCA	Not Available
Taiwan - TCSI	Not Available
Mexico - INSQ	Not Available
Vietnam - NCI	Not Available
Russia - FBEPH	Not Available
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	26/09/2023
Initial Date	26/09/2023

Other information

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.

The 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.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals EN 133 Respiratory protective devices

Definitions and abbreviations

PC - TWA: Permissible Concentration-Time Weighted Average PC - STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit. IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value **BCF: BioConcentration Factors BEI: Biological Exposure Index** AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Skin Corrosion/Irritation Category 2, H315	Expert judgement
Serious Eye Damage/Eye Irritation Category 2, H319	Expert judgement
Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, H335	Expert judgement

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