

CYASORB CYNERGY SOLUTIONS® B878T STABILIZER

Revision Date 01/25/2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name CYASORB CYNERGY SOLUTIONS® B878T STABILIZER

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance / Mixture**

- Building and construction material for UV and thermal protection

1.3 Details of the supplier of the safety data sheet**Company**

CYTEC INDUSTRIES INC.
504 CARNEGIE CENTER
PRINCETON, NJ 08540 USA

Local contact

+800-438-5615; +888-298-3272

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): +1-800-424-9300 within the United States and Canada, or +1-703-527-3887 for international collect calls.

Disclaimer

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SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture**HCS 2012 (29 CFR 1910.1200)**

Combustible dust

May form combustible dust concentrations in air.

2.2 Label elements**HCS 2012 (29 CFR 1910.1200)****Signal Word**

- Warning

Hazard Statements

- May form combustible dust concentrations in air.

Precautionary Statements**Prevention**

- P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P280 Wear protective gloves/ eye protection/ face protection.

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Response

- P363

Wash contaminated clothing before reuse.

Disposal

- P501

Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

- Risk of explosion.
- Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

SECTION 3: Composition/information on ingredients**3.1 Substance**

- Not applicable, this product is a mixture.

3.2 Mixture

- Chemical nature Encapsulated substituted amines in polypropylene

Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
Hindered amine	*****	10 - 30
Substituted amine	*****	10 - 30
alkylthiocarboxylate ester	*****	5 - 10
Cyclic amino alcohol	*****	<= 0.2
Formaldehyde	50-00-0	< 0.002

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4: First aid measures**4.1 Description of first-aid measures****In case of inhalation**

- Move to fresh air.
- Get medical attention immediately if symptoms occur.

In case of skin contact

- Use appropriate protective equipment when treating a contaminated person.

In case of eye contact

- Rinse with running water whilst keeping the eyes wide open.

In case of ingestion

- Do NOT induce vomiting.
- Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed**Effects**

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- No hazards to be specially mentioned.
- Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.
- Risk of nose bleeding
- Irritating to mucous membranes

Repeated or prolonged exposure

- Contact with dust can cause mechanical irritation or drying of the skin.
- Dust contact with the eyes can lead to mechanical irritation.

Symptoms

- At high concentrations:
- slight irritation
- Cough
- Redness
- Redness of the conjunctiva

4.3 Indication of any immediate medical attention and special treatment needed**Notes to physician**

- When symptoms persist or in all cases of doubt seek medical advice.

SECTION 5: Firefighting measures

<u>Flash point</u>	Not applicable
<u>Autoignition temperature</u>	No data available
<u>Flammability / Explosive limit</u>	No data available

5.1 Extinguishing media**Suitable extinguishing media**

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

- Under fire conditions:
- Will burn
- On combustion, toxic gases are released.
- Risk of dust explosion.
- Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3 Advice for firefighters**Special protective equipment for fire-fighters**

- In the event of fire, wear self-contained breathing apparatus.

Specific fire fighting methods

- Do not use a solid water stream as it may scatter and spread fire.

Further information

- Standard procedure for chemical fires.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- For further information refer to section 8 "Exposure controls / personal protection."

6.2 Environmental precautions

- Prevent further leakage or spillage if safe to do so.
- Contain the spilled material by diking.
- Do not let product enter drains.
- Do not allow uncontrolled discharge of product into the environment.
- Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

6.3 Methods and materials for containment and cleaning up

- Stop leak if safe to do so.
- Avoid dust formation.
- Sweep up and shovel into suitable containers for disposal.
- Keep in properly labeled containers.
- Keep in suitable, closed containers for disposal.
- After cleaning, flush away traces with water.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.
- Dispose of in accordance with local regulations.
- Never return spills in original containers for re-use.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
- Handling of material should be in accordance with standards for venting of deflagrations (e.g. NFPA-68).
- If handled with flammable or combustible materials the explosion hazard may increase.

Hygiene measures

- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.
- Eye wash bottles or eye wash stations in compliance with applicable standards.

Dust explosion class

- St2

7.2 Conditions for safe storage, including any incompatibilities

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Technical measures/Storage conditions

- Ensure all equipment is electrically grounded before beginning transfer operations.

Requirements for storage rooms and vessels

Recommended storage temperature: 50 - 104 °F (10 - 40 °C)

- To guarantee the quality and properties of the product keep according to Storage temperature and conditions.

7.3 Specific end use(s)

- Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

- Contains no substances with occupational exposure limit values.

NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations)

Components	CAS-No.	Concentration
Formaldehyde	50-00-0	20 parts per million

8.2 Exposure controls**Control measures****Engineering measures**

- Provide appropriate exhaust ventilation at places where dust is formed.
- Apply technical measures to comply with the occupational exposure limits.

Individual protection measures**Respiratory protection**

- Self-contained breathing apparatus in confined spaces/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.
- Use only respiratory protection that conforms to international/ national standards.
- Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
- Respirator with a dust filter

Hand protection

- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
- Impervious gloves

Eye protection

- Dust proof goggles, if dusty.
- Eye wash bottles or eye wash stations in compliance with applicable standards.

Skin and body protection

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- Dust impervious protective suit

Hygiene measures

- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.
- Eye wash bottles or eye wash stations in compliance with applicable standards.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

<u>Physical state</u>	solid
<u>Form</u>	encapsulated
<u>Color</u>	white to off-white
<u>Odor</u>	odorless
<u>Odor Threshold</u>	No data available
<u>Melting point/freezing point</u>	Not applicable
<u>Initial boiling point and boiling range</u>	No data available
<u>Flammability (solid, gas)</u>	May form explosive dust-air mixture.
<u>Flammability (liquids)</u>	No data available
<u>Flammability / Explosive limit</u>	No data available
<u>Flash point</u>	Not applicable
<u>Autoignition temperature</u>	No data available
<u>Decomposition temperature</u>	No data available
<u>pH</u>	No data available
<u>Viscosity</u>	No data available
<u>Solubility</u>	No data available
<u>Partition coefficient: n-octanol/water</u>	No data available
<u>Vapor pressure</u>	No data available
<u>Density</u>	No data available
<u>Relative density</u>	No data available

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<u>Relative vapor density</u>	No data available
<u>Particle characteristics</u>	No data available
<u>Evaporation rate (Butylacetate = 1)</u>	No data available

9.2 Other information

<u>Oxidizing properties</u>	Not considered as oxidizing.
<u>Peroxides</u>	The substance or mixture is not classified as organic peroxide.
<u>Corrosion of Metals</u>	Not corrosive to metals.
<u>Dust deflagration index (Kst)</u>	200 m.bar/s
<u>Dust explosion constant</u>	St2
<u>Minimum ignition energy</u>	< 30 mJ
<u>Minimum ignition concentration</u>	30 g/m3
<u>Molecular weight</u>	Proprietary Ingredient

SECTION 10: Stability and reactivity**10.1 Reactivity**

- Stable

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Avoid excessive heat for prolonged periods of time.

10.5 Incompatible materials

- Strong acids
- Aluminum
- Oxidizing agents

10.6 Hazardous decomposition products**Hazardous decomposition products**

- Carbon oxides
- Nitrogen oxides (NOx)
- Ammonia

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SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Acute oral toxicity No data available

Acute inhalation toxicity No data available

Acute dermal toxicity No data available

Acute toxicity (other routes of administration) Not applicable

Skin corrosion/irritation No data available**Serious eye damage/eye irritation** No data available**Respiratory or skin sensitization** No data available**Mutagenicity**

Genotoxicity in vitro No data available

Genotoxicity in vivo No data available

Carcinogenicity No data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA**Toxicity for reproduction and development**

Toxicity to reproduction / fertility No data available

Developmental Toxicity/Teratogenicity No data available

STOT

STOT-single exposure No data available

STOT-repeated exposure No data available

No data available

Experience with human exposure No data available**CMR effects****Carcinogenicity**

Formaldehyde Classified as carcinogen category 1B according to GHS criteria

Mutagenicity

Hindered amine Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Substituted amine Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

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Formaldehyde	Classified as mutagen category 2 according to GHS criteria.
Teratogenicity Hindered amine	Not classified as toxic for the reproduction (development) according to GHS criteria
Reproductive toxicity Hindered amine	Not classified as toxic for the reproduction (fertility and/or development) according to GHS criteria
<u>Aspiration toxicity</u>	No data available
<u>Further information</u>	The product in the form placed on the market does not present a hazard to human health under normal handling conditions. The hazardous components (if any) are embedded in the polymer matrix and are not intended to be released.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment**

Acute toxicity to fish	The product itself has not been tested.
Acute toxicity to daphnia and other aquatic invertebrates	The product itself has not been tested.
Toxicity to aquatic plants	The product itself has not been tested.
Toxicity to microorganisms	The product itself has not been tested.
Chronic toxicity to fish	The product itself has not been tested.
Chronic toxicity to daphnia and other aquatic invertebrates	The product itself has not been tested.

Sediment compartment

Toxicity to benthic organisms	The product itself has not been tested.
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Terrestrial Compartment

Toxicity to soil dwelling organisms	The product itself has not been tested.
Toxicity to terrestrial plants	The product itself has not been tested.
Toxicity to above ground organisms	The product itself has not been tested.

M-Factor

Hindered amine	Acute aquatic toxicity = 1 Chronic aquatic toxicity = 1 (according to the Globally Harmonized System (GHS))
Substituted amine	Acute aquatic toxicity = 1 Chronic aquatic toxicity = 1 (according to the Globally Harmonized System (GHS))

12.2 Persistence and degradability

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Abiotic degradation

Stability in water	Conclusion is not possible for a mixture as a whole.
Photodegradation	Conclusion is not possible for a mixture as a whole.
Other Physicochemical reactions	Conclusion is not possible for a mixture as a whole.

Physical- and photo-chemical elimination

Physico-chemical removability	Conclusion is not possible for a mixture as a whole.
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Biodegradation

Biodegradability	As (bio)degradability is not relevant for mixtures, all the components of the mixture were assessed individually (rapid degradability assessment available below).
Ratio BOD / COD	Conclusion is not possible for a mixture as a whole.
Ratio BOD / ThOD	Conclusion is not possible for a mixture as a whole.
Biochemical Oxygen Demand (BOD)	Conclusion is not possible for a mixture as a whole.
Dissolved organic carbon (DOC)	Conclusion is not possible for a mixture as a whole.
Chemical Oxygen Demand (COD)	Conclusion is not possible for a mixture as a whole.
Adsorbed organic bound halogens (AOX)	Conclusion is not possible for a mixture as a whole.

Degradability assessment

Conclusion is not possible due to incomplete or heterogeneous data on the components

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water	Conclusion is not possible for a mixture as a whole.
Bioconcentration factor (BCF)	As bioaccumulation is not relevant for mixtures, all the components of the mixture were assessed individually. At least one of the components is considered to be potentially bioaccumulable. Unpublished reports Published data

12.4 Mobility in soil

Adsorption potential (Koc)	Conclusion is not possible for a mixture as a whole.
Known distribution to environmental compartments	Conclusion is not possible due to incomplete or heterogeneous data on the components

12.5 Results of PBT and vPvB assessment

According to the available data on the components
This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

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Ecotoxicity assessment

Short-term (acute) aquatic hazard No data available**Long-term (chronic) aquatic hazard** No data available**Remarks** The product in the form placed on the market does not present a hazard to the environment under normal handling conditions. The hazardous components are embedded in the polymer matrix and are not released in the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- The Company encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, The Company recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

SECTION 14: Transport information

49 CFR

not regulated

TDG

not regulated

NOM

not regulated

IMDG

not regulated

IATA

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

Inventory Information	Status
United States TSCA Inventory	- All substances listed as active on the TSCA inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australian Inventory of Industrial Chemicals (AIIC)	- All components are listed on the inventory, regulatory obligations/restrictions apply
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory

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Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- One or more components not listed on inventory
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand.
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.
Korea. Act on Registration and Evaluation of Chemicals	- When purchased from a Solvay legal entity based in Korea, this product is compliant with "Act on Registration and Evaluation of Chemicals" (AREC or K-REACH, Article 10) as all its components are either excluded, exempt, and/or (pre)registered. When purchased from a legal entity outside of Korea, please contact your local representative for additional information.

15.2 Federal Regulations

US. EPA EPCRA SARA Title III**SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

Combustible dust	Yes
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The categories not mentioned are not relevant for the product.

Section 313 Toxic Chemicals (40 CFR 372.65)

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.

Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)

This material does not contain any components with a section 302 EHS TPQ.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)

Components	CAS-No.	Reportable quantity
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Formaldehyde	50-00-0	100 lb
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Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

Components	CAS-No.	Reportable quantity
Formaldehyde	50-00-0	100 lb

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Components	CAS-No.	Reportable quantity
Sodium hydroxide (Na(OH))	1310-73-2	1000 lb
Benzene, chloro-	108-90-7	100 lb
Benzene, methyl-	108-88-3	1000 lb
Formaldehyde	50-00-0	100 lb
Methanol	67-56-1	5000 lb
Methanamine, N,N-dimethyl-	75-50-3	100 lb

15.3 State Regulations**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

Please contact your local sales representative if you have questions and need more information concerning this product under California's Proposition 65 statute (www.p65warnings.ca.gov).

SECTION 16: Other information**NFPA (National Fire Protection Association) - Classification**

Health	1 slight
Flammability	2 moderate
Instability or Reactivity	0 minimal

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health	3 serious
Flammability	3 serious
PPE	Determined by User; dependent on local conditions

Further information

- Distribute new edition to clients

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Key or legend to abbreviations and acronyms used in the safety data sheet

- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NTP: National Toxicology Program
- IARC: International Agency for Research on Cancer
- NIOSH: National Institute for Occupational Safety and Health
- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average

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- ATE:	Estimated value of acute toxicity
- EC:	European Community number
- CAS:	Chemical Abstracts Service.
- LD50:	Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50:	Substance concentration causing 50% (half) death in the test animals group.
- EC50:	Effective Concentration of the substance causing the maximum of 50%.
- PBT:	Persistent, Bioaccumulative and Toxic substance.
- vPvB:	Very Persistent and Very Bioaccumulative.
- SEA:	Classification, labeling, packaging regulation
- DNEL:	Derived No Effect Level
- PNEC:	Predicted No Effect Concentration
- STOT:	Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.