SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

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

1.1 Product identifier

Product name:
TEGO® Addbond HS

Chemical name:
Polyester resin, styrene free

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

Identified uses: Industrial use

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Company Name	:	Evonik Operations GmbH Rellinghauser Str. 1-11 45128 Essen Germany
Telephone	:	+49 201 173 01
Fax	:	+49 201 173 3000
E-mail	:	productsafety-cs@evonik.com

1.4 Emergency telephone number:

24-Hour Health Emergency	:	+49 2365 49 2232 +49 2365 49 4423 (Fax)

National Poison Information Service (NPIS)
England, Scotland and Wales: NHS: 111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Physical Hazards

Flammable liquids	Category 3	H226: Flammable liquid and vapor.

Health Hazards

Specific Target Organ Toxicity - Single Exposure	Category 3	H336: May cause drowsiness or dizziness.

2.2 Label Elements

Signal Words: Warning

Hazard Statement(s):
H226: Flammable liquid and vapor.
H336: May cause drowsiness or dizziness.

Precautionary Statements

Prevention:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243: Take action to prevent static discharges.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

Response:
P312: Call a POISON CENTER or doctor/ physician if you feel unwell.

Storage:
P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal:
P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazardous ingredients which must be listed on the label:
Butyl acetate

Supplemental label information

EUH066: Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

Chemical name:
Polyester resin, styrene free

3.2 Mixtures

Chemical name	Concentration	CAS-No.	EC No.	UK-REACH Registration No.	REACH Registration No.	M-Factor:	Notes
Butyl acetate	20 - <50%	123-86-4	204-658-1		01-2119485493-29	No data available.	#

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).

This substance is listed as SVHC.

Classification

Chemical name	Classification	Notes
Butyl acetate	Classification: Flam. Liq.: 3: H226; STOT SE: 3: H336; Supplemental label information: EUH066;	None.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Remove soiled or soaked clothing immediately

Inhalation: fresh air supply, consult a doctor if feeling unwell.

Skin Contact: In case of contact with skin wash off immediately with soap and water In case of discomfort: Supply with medical care.

Eye contact: In case of contact with eyes rinse thoroughly with water. In case of discomfort: Supply with medical care.

Ingestion: Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.

Personal Protection for First-aid Responders: No data available.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Depending on the dose inhalation and/or ingestion may cause: headache, inebriation, unconsciousness. Prolonged skin contact may cause skin irritation and/or dermatitis.

Hazards: No data available.

4.3 Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: foam, carbon dioxide, dry powder, water spray.

Unsuitable extinguishing media: High volume water jet.

5.2 Special hazards arising from the substance or mixture:

In the event of fire the following can be released: - carbon dioxide, carbon monoxide Under certain conditions of combustion traces of other toxic substances cannot be excluded

5.3 Advice for firefighters

Special fire fighting procedures:	Keep away from sources of ignition - no smoking. Take action to prevent static discharges. Vapours may form explosive mixtures with air. Cool endangered containers by water spray
Special protective equipment for fire-fighters:	Do not inhale explosion and/or combustion gases. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Keep away sources of ignition. Ensure adequate ventilation.

6.1.1 For non-emergency personnel: No data available.

6.1.2 For emergency responders: No data available.

6.2 Environmental Precautions: Prevent product from getting into subsoil/soil. Do not allow to enter drains or waterways

6.3 Methods and material for containment and cleaning up: Take up with absorbent material (eg sand, kieselguhr, universal binder) Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections: For further information on exposure monitoring and disposal see sections 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures:	No data available.
Local/Total ventilation:	No data available.
Safe handling advice:	Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols.Provide good ventilation of working area (local exhaust ventilation if necessary).
Contact avoidance measures:	No data available.

7.2 Conditions for safe storage, including any incompatibilities

Safe storage conditions:	Keep container tightly closed in a cool, well-ventilated place.Keep away from direct sunlight.Do not store together with oxidizing agents.
Safe packaging materials:	No data available.

7.3 Specific end use(s): No further recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	Type	Form of exposure	Exposure Limit Values		Source
Butyl acetate	TWA		150 ppm	724 mg/m3	EH40 WEL (12 2011)

	STEL 15 minutes		200 ppm	966 mg/m3	EH40 WEL (01 2020)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values
No biological exposure limits noted for the ingredient(s).

DNEL-Values
Remarks: DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Butyl acetate	Workers	Dermal	Systemic, short-term; 11 mg/kg	Neurotoxicity
	General population	Inhalation	Systemic, long-term; 12 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 6 mg/kg	Neurotoxicity
	General population	Inhalation	Systemic, long-term; 35.7 mg/m3	irritation respiratory tract
	Workers	Inhalation	Local, short-term; 600 mg/m3	irritation respiratory tract
	General population	Oral	Systemic, long-term; 2 mg/kg	Neurotoxicity
	Workers	Inhalation	Local, long-term; 300 mg/m3	irritation respiratory tract
	General population	Inhalation	Systemic, short-term; 300 mg/m3	irritation respiratory tract
	General population	Inhalation	Local, long-term; 35.7 mg/m3	irritation respiratory tract
	Workers	Inhalation	Systemic, long-term; 300 mg/m3	irritation respiratory tract
	Workers	Inhalation	Systemic, short-term; 600 mg/m3	irritation respiratory tract
	Workers	Dermal	Systemic, long-term; 11 mg/kg	Neurotoxicity
	General population	Inhalation	Local, short-term; 300 mg/m3	irritation respiratory tract
	Workers	Inhalation	Systemic, long-term; 48 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 3.4 mg/kg	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Dermal	Systemic, long-term; 7 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, short-term; 6 mg/kg	Neurotoxicity
	General population	Eyes	Local effect;	No hazard identified
	General population	Oral	Systemic, short-term; 2 mg/kg	Neurotoxicity
	General population	Oral	Systemic, long-term; 3.4 mg/kg	Repeated dose toxicity

PNEC-Values
Remarks: PNEC-Values

Critical component	Environmental compartment	PNEC-Values	Remarks
Butyl acetate	Aquatic (marine water)	0.018 mg/l	
	Sewage treatment plant	35.6 mg/l	
	Sediment (marine water)	0.098 mg/kg	
	Aquatic (freshwater)	0.18 mg/l	
	Sediment (freshwater)	0.981 mg/kg	
	Soil	0.09 mg/kg	

8.2 Exposure controls

Appropriate Engineering Controls: No data available.

Individual protection measures, such as personal protective equipment

Eye/face protection:	Safety goggles
Hand Protection:	Material: Nitrile rubber. Break-through time: 480 min Glove thickness: 0.4 mm Material: Nitrile rubber. Break-through time: 30 min Glove thickness: 0.1 mm
Skin and Body Protection:	protective clothing
Respiratory Protection:	in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2
Hygiene measures:	When using do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Remove soiled or soaked clothing immediately.
Environmental Controls:	The environmental regulations on the control and monitoring of environmental exposures are to be observed.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	ester-like
Odor Threshold:	not measured
Freezing point:	not measured
Boiling Point:	126 °C
Flammability:	not measured
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	33 °C Method: DIN EN ISO 13736
Auto-ignition temperature:	415 °C Method: DIN 51794
Decomposition Temperature:	not measured
pH:	Not applicable
Viscosity	
Dynamic viscosity:	1,500 - 2,500 mPa.s at 23 °C Method: DIN 53214
Kinematic viscosity:	1364 - 2273 mm2/s at 23 °C , Method: calculated
Solubility(ies)	
Solubility in Water:	Insoluble

Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	9 hPa at 20 °C
Relative density:	not measured
Density:	1.1 g/cm3 at 20 °C
Relative vapor density:	not measured

9.2 Other information

Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Self-ignition:	not measured
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	not measured

SECTION 10: Stability and reactivity

10.1	**Reactivity:**	see section "Possibility of hazardous reactions".
10.2	**Chemical Stability:**	The product is stable under normal conditions.
10.3	**Possibility of hazardous reactions:**	No hazardous reactions with proper storage and handling
10.4	**Conditions to avoid:**	Open flames, sparks or input of much heat direct sunlight
10.5	**Incompatible Materials:**	Oxidizing agents.
10.6	**Hazardous Decomposition Products:**	None with proper storage and handling.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Inhalation:	Information on effects are given below.
Skin Contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral

Product:	No data available. Not classified for acute toxicity based on available data.
Components:	
Butyl acetate	LD 50, Rat, Female, 10,760 mg/kg, OECD 423 LD 50, Rat, Male, 12,789 mg/kg, OECD 423

Dermal

Product: No data available.
Not classified for acute toxicity based on available data.

Components:
Butyl acetate: LD 50, Rabbit, Female, Male, > 14,112 mg/kg, OECD 402

Inhalation

Product: No data available.
Not classified for acute toxicity based on available data.

Components:
Butyl acetate: LC 50, Rat, 4 h, 23.4 mg/l, Dust and mist, OECD 403
Vapour, Not toxic after single exposure, No data available.

Repeated dose toxicity

Product: No data available.

Components:
Butyl acetate: No data available.

Skin Corrosion/Irritation

Product: No data available.

Components:
Butyl acetate: Not irritating, OECD 404, Rabbit

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:
Butyl acetate: Not irritating, OECD 405, Rabbit

Respiratory or Skin Sensitization

Product: No data available.

Components:
Butyl acetate: Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer.

Carcinogenicity

Product: No data available.

Components:
Butyl acetate: No data available.

Germ Cell Mutagenicity

No data available.

In vitro

Product: No data available.

Components:
Butyl acetate: No data available.

In vivo

Product: No data available.

Components:
Butyl acetate: No data available.

Reproductive toxicity

Product: No data available.

Components:
Butyl acetate: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Components:

Butyl acetate	Inhalation - vapor, Central nervous system., Category 3 with narcotic effects., May cause drowsiness or dizziness.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:

Butyl acetate: No data available.

Aspiration Hazard

Product: Not classified

Components:

Butyl acetate: Not classified

11.2 Information on other hazards

Other information

Product: No data available.

SECTION 12: Ecological information

12.1 Toxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Components:

Butyl acetate: LC 50, Pimephales promelas, 96 h, 18 mg/l OECD 203

Aquatic Invertebrates

Product: No data available.

Components:

Butyl acetate: EC 50, Daphnia magna, 48 h, 44 mg/l OECD 202

Toxicity to Aquatic Plants

Product: No data available.

Components:

Butyl acetate: EC 50 (Desmodesmus subspicatus (green algae), 72 h): 647 mg/l growth rate

Toxicity to microorganisms

Product: No data available.

Components:

Butyl acetate: IC 50, Tetrahymena pyriformis, 40 h, 356 mg/l

Toxicity to soil dwelling organisms

Product: No data available.

Components:

Butyl acetate: No data available.

Toxicity to terrestrial organisms

Product: No data available.

Components:

Butyl acetate: No data available.

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Butyl acetate	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Butyl acetate	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Butyl acetate	NOEC (Desmodesmus subspicatus (green algae), 72 h): 200 mg/l growth rate

Toxicity to microorganisms

Product:	No data available.
Components:	
Butyl acetate	IC 50, Tetrahymena pyriformis, 40 h, 356 mg/l

Toxicity to soil dwelling organisms

Product:	No data available.
Components:	
Butyl acetate	No data available.

Toxicity to terrestrial organisms

Product:	No data available.
Components:	
Butyl acetate	No data available.

12.2 Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
Butyl acetate	83 %, 28 d, OECD 301 D, The product is easily biodegradable., aerobic

12.3 Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
Butyl acetate	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	not measured
Components:	
Butyl acetate	2.3, OECD 117

12.4 Mobility in soil:

Product	No data available.
Components:	
Butyl acetate	No data available.

12.5 Results of PBT and vPvB assessment:

Product	No data available.
Components:	
Butyl acetate	No data available.

12.6 Other adverse effects:

Other hazards
Product: Do not allow to enter soil, waterways or waste water canal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: No data available.

Disposal methods: In accordance with local authority regulations, take to special waste incineration plant

Contaminated Packaging: If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

SECTION 14: Transport information

14.1 UN/ID No.

ADR	:	UN 1866
RID	:	UN 1866
IMDG	:	UN 1866
IATA	:	UN 1866

14.2 UN proper shipping name

ADR	:	RESIN SOLUTION
RID	:	RESIN SOLUTION
IMDG	:	RESIN SOLUTION
IATA	:	Resin solution

14.3 Transport hazard class(es)

ADR	:	3
RID	:	3
IMDG	:	3
IATA	:	3

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3
Tunnel restriction code	:	(D/E)

RID

Packing group	:	III

Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3

IMDG

Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Remarks	:	Stowage category A

IATA (Cargo aircraft only)

Packing instruction (cargo aircraft)	:	366
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	3

IATA (Passenger and cargo aircraft)

Packing instruction (passenger aircraft)	:	355
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	3

14.5 Environmental hazards

ADR
Environmentally hazardous : no

RID
Environmentally hazardous : no

IMDG
Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:

Classification	Lower-tier Requirements	Upper-tier Requirements
P5c. Flammable liquids	5,000 t	50,000 t

15.2 Chemical safety assessment: No chemical safety assessment was carried out for this product.

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

SECTION 16: Other information

Abbreviations and acronyms:

EH40 WEL:	UK. EH40 Workplace Exposure Limits (WELs), as amended
EH40 WEL / STEL:	Short Term Exposure Limit (STEL):
EH40 WEL / TWA:	Time Weighted Average (TWA):

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EIGA - European Industrial Gases Association; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Key literature references and sources for data: No data available.

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 as amended.	Classification procedure
Flammable liquids, Category 3	On basis of test data

Specific Target Organ Toxicity - Single Exposure, Category 3	Calculation method

Wording of the statements in section 2 and 3

H226	Flammable liquid and vapor.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Training information: Comply with national laws regulating employee instruction.

Revision Information Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Disclaimer: This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.