

Eastman(TM) SAIB-90 (Sucrose Acetate Isobutyrate)

PO00080487

Version	Revision Date:	SDS Number:	Date of last issue: -
2.1	11/12/2018	150000001101	Date of first issue: 09/06/2016
PRD		SDSUS / Z8 / 0001	N44 / 0038682566 / 0004306357

SECTION 1. IDENTIFICATION

Product name : Eastman(TM) SAIB-90 (Sucrose Acetate Isobutyrate)

Product code : P0450101

Manufacturer or supplier's details

Company name of supplier : Eastman Chemical Company

Address : 200 South Wilcox Drive
Kingsport TN 37660-5280

Telephone : (423) 229-2000

Emergency telephone : CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCN7321

Recommended use of the chemical and restrictions on useRecommended use : Plasticizer
Cosmetic.

Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Flammable liquids : Category 2

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H225 Highly flammable liquid and vapor.

Precautionary Statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces.
No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.

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P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
sucrose acetate isobutyrate	126-13-6, 27216-37-1, or 137204-24-1	90
ethyl alcohol	64-17-5	< 10
methyl isobutyl ketone	108-10-1	< 1
methanol	67-56-1	< 0.5

SECTION 4. FIRST AID MEASURES

If inhaled	: Remove to fresh air. Treat symptomatically. Get medical advice/ attention.
In case of skin contact	: Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
In case of eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical advice/ attention. Remove person to fresh air. If signs/symptoms continue, get medical attention.
If swallowed	: Seek medical advice.
Most important symptoms and effects, both acute and delayed	: Vapors may cause drowsiness and dizziness.
Notes to physician	: Treat symptomatically.

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SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray
Dry chemical
Carbon dioxide (CO2)
Foam
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting : Prevent buildup of vapors or gases to explosive concentrations.
- Hazardous combustion products : No hazardous combustion products are known
- Further information : Use water spray to cool unopened containers.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear appropriate personal protective equipment.
Local authorities should be advised if significant spillages cannot be contained.
- Environmental precautions : Avoid release to the environment.
- Methods and materials for containment and cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Flush with water.
Clean contaminated surface thoroughly.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof electrical equipment.
Use non-sparking tools.
Take precautionary measures against static discharge.
Wear personal protective equipment.
Wash thoroughly after handling.
- Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethyl alcohol	64-17-5	STEL	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
methyl isobutyl ketone	108-10-1	TWA	20 ppm	ACGIH
		STEL	75 ppm	ACGIH
		ST	75 ppm 300 mg/m3	NIOSH REL
		TWA	50 ppm 205 mg/m3	NIOSH REL
		TWA	100 ppm 410 mg/m3	OSHA Z-1
		TWA	50 ppm 205 mg/m3	OSHA P0
methanol	67-56-1	STEL	75 ppm 300 mg/m3	OSHA P0
		TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m3	NIOSH REL
		ST	250 ppm 325 mg/m3	NIOSH REL
		TWA	200 ppm 260 mg/m3	OSHA Z-1
		STEL	250 ppm 325 mg/m3	OSHA P0
		TWA	200 ppm 260 mg/m3	OSHA P0

Engineering measures : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Respiratory protection : If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved

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respirator must be worn.
Wear a positive-pressure supplied-air respirator.

Hand protection

Remarks : Wear suitable gloves.

Eye protection : Wear safety glasses with side shields (or goggles).

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : viscous liquid

Color : yellow

Odor : ester-like

Odor Threshold : not determined

pH : not determined

Melting point/range : not determined

Boiling point/boiling range : 221 °F / 105 °C

Flash point : 62.8 °F / 17.1 °C

Method: Tag closed cup

Evaporation rate : not determined

Upper explosion limit / Upper flammability limit : not determined

Lower explosion limit / Lower flammability limit : not determined

Vapor pressure : 53.2 mbar (68 °F / 20 °C)

Relative vapor density : 1.5

Relative density : 1.10

Solubility(ies)
Water solubility : negligible

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Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	756 °F / 402 °C Method: ASTM E659
Decomposition temperature	:	Method: DTA No exotherm to 450°C
Viscosity		
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined
Explosive properties	:	No data available
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	None reasonably foreseeable.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None known. Stable
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Carbon dioxide (CO ₂) Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Product:

Acute oral toxicity	:	Remarks: No data available
Acute inhalation toxicity	:	Remarks: No data available
Acute dermal toxicity	:	Remarks: No data available

Ingredients:**ethyl alcohol:**

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Acute oral toxicity : LD50 Oral (Rat): 10,470 mg/kg

Acute inhalation toxicity : LC50 (Rat): 117 - 125 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal (Rabbit): > 15,800 mg/kg

methyl isobutyl ketone:

Acute oral toxicity : LD50 Oral (Rat): 2,080 mg/kg

Acute inhalation toxicity : LC50 (Rat): 16.4 mg/l
Exposure time: 4 h
Test atmosphere: vapor

methanol:

Acute oral toxicity : LD50 Oral (Rat): 5,600 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 17,100 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : No data available

Ingredients:**ethyl alcohol:**

Species : Rabbit

Exposure time : 24 h

Result : none

methyl isobutyl ketone:

Species : Rabbit

Exposure time : 72 h

Result : none

methanol:

Species : Rabbit

Exposure time : 72 h

Result : none

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks : No data available

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Ingredients:**ethyl alcohol:**

Species	:	Rabbit
Result	:	slight

methyl isobutyl ketone:

Species	:	Rabbit
Result	:	Eye irritation

methanol:

Species	:	Rabbit
Result	:	slight to moderate

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Remarks	:	No data available
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Ingredients:**ethyl alcohol:**

Test Type	:	Skin Sensitization
Species	:	Mouse
Result	:	non-sensitizing

methanol:

Test Type	:	Skin Sensitization
Species	:	Guinea pig
Result	:	non-sensitizing

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Product:

Remarks	:	This information is not available.
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IARCGroup 2B: Possibly carcinogenic to humans
methyl isobutyl ketone

108-10-1

OSHA

No component of this product present at levels greater than or equal to 0.1% is

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on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Product:

Effects on fertility : Remarks: No data available

STOT-single exposure

Not classified based on available information.

Product:

Remarks : No data available

Ingredients:**methanol:**

Target Organs : optic nerve, Central nervous system
Assessment : Causes damage to organs.

STOT-repeated exposure

Not classified based on available information.

Product:

Remarks : No data available

Aspiration toxicity

Not classified based on available information.

Product:

No data available

Ingredients:**methyl isobutyl ketone:**

May be harmful if swallowed and enters airways.

Information on likely routes of exposure**Product:**

Inhalation : Remarks: Harmful if inhaled.
High vapor concentrations may cause drowsiness.

Eye contact : Remarks: Causes eye irritation.

Ingestion : Remarks: None known.

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Ingredients:****ethyl alcohol:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 15,300 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : LC50 (Daphnia magna (Water flea)): 5,012 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 275 mg/l
Exposure time: 72 h

methyl isobutyl ketone:

Toxicity to fish : LC50 (goldfish): 460 mg/l
Exposure time: 24 h

LC50 (golden orfe): 675 - 750 mg/l
Exposure time: 48 h

Toxicity to daphnia and other : LC50 (Daphnia magna (Water flea)): 4,300 mg/l
aquatic invertebrates Exposure time: 24 h

LC50 (Crangon crangon (shrimp)): 1,250 mg/l
Exposure time: 24 h

methanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (algae)): 22,000 mg/l
Exposure time: 96 h

Persistence and degradability**Ingredients:****ethyl alcohol:**

Biodegradability : Concentration: 10 mg/l
Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

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Chemical Oxygen Demand (COD) : 1,990 mg/g

methyl isobutyl ketone:

Biodegradability : Result: Readily biodegradable

Biochemical Oxygen Demand (BOD) : BOD-5:
1,940 - 2,060 mg/g

Chemical Oxygen Demand (COD) : 2,160 - 2,460 mg/g

ThOD : 2,720 mg/g

methanol:

Biodegradability : Concentration: 10 mg/l
Biodegradation: 95 %
Exposure time: 20 d

Biochemical Oxygen Demand (BOD) : BOD-5:
770 mg/g
Incubation time: 5 d

BOD-20:
1,260 mg/g
Incubation time: 20 d

Chemical Oxygen Demand (COD) : 1,410 mg/g

BOD/COD : BOD/COD: 54.6 %

ThOD : 1,500 mg/g

BOD/ThOD : 51.3 %

Bioaccumulative potential**Ingredients:****ethyl alcohol:**

Bioaccumulation : Remarks: Does not accumulate in organisms.

methyl isobutyl ketone:

Partition coefficient: n-octanol/water : Pow: 24
log Pow: 1.38

methanol:

Partition coefficient: n-octanol/water : Pow: 0.17
log Pow: -0.77

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Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No.	: UN 1993
Proper shipping name	: Flammable liquid, n.o.s. (ethanol, methanol)
Class	: 3
Packing group	: II
Labels	: Flammable Liquids
Packing instruction (cargo aircraft)	: 364
Packing instruction (passenger aircraft)	: 353

IMDG-Code

UN number	: UN 1993
Proper shipping name	: FLAMMABLE LIQUID, N.O.S. (ethanol, methanol)
Class	: 3
Packing group	: II
Labels	: 3
EmS Code	: F-E, <u>S-E</u>
Marine pollutant	: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

UN/ID/NA number	: UN 1993
Proper shipping name	: Flammable liquids, n.o.s. (ethanol, methanol)
Class	: 3
Packing group	: II
Labels	: Class 3 - Flammable Liquid
ERG Code	: 128
Marine pollutant	: no

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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.

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
methyl isobutyl ketone	108-10-1	100	100 (F003)
methanol	67-56-1	100	100 (F003)
methyl isobutyl ketone	108-10-1	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Ingredients	CAS-No.	Component TPQ (lbs)
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SARA 311/312 Hazards : Fire Hazard

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.

California Prop. 65

WARNING: This product can expose you to chemicals including methyl isobutyl ketone, methanol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The ingredients of this product are reported in the following inventories:

TSCA	: On the inventory, or in compliance with the inventory
DSL	: On the inventory, or in compliance with the inventory
AICS	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory

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TSCA list

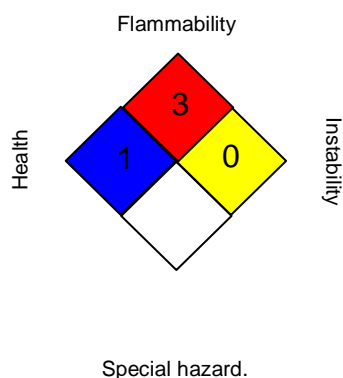
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	/	1
FLAMMABILITY		3
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with

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x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 11/12/2018

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / Z8