

Safety Data Sheet



SDS No. : 30303ES
Revision : 2
Prepared Date : July 1, 2018

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

1.1 Product identifier

Product name : BioPro IEX SmartSep Q30, BioPro IEX SmartSep S30,
BioPro IEX SmartSep Q20, BioPro IEX SmartSep S20,
BioPro IEX SmartSep Q10, BioPro IEX SmartSep S10

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

Use of the Substance/ Mixture : Packing for High Performance Liquid Chromatography

1.3 Details of the supplier of the safety data sheet

Manufacturer
Company : YMC CO., LTD.
Address : 5-28 Kokufudai Komatsu-shi Ishikawa, 923-8557, Japan
Telephone : +81-761-47-8224

1.4 Emergency telephone number

+81-75-342-4515 (9:00-17:00, JST)

2. Hazards identification

2.1 GHS Classification

Classification : Flammable liquid — Category 3
(REGULATION (EC) No 1272/2008)

H226 Flammable liquid and vapor

2.2 Label elements

Hazard pictograms



Signal word

Warning

Hazard statements

H226 Flammable liquid and vapor

Precautionary statements

<Prevention>

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

<Response>

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

P337 + P313 If eye irritation persists: Get medical advice/ attention.

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

<Storage>

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

2.3 Other hazards

no data available

3. Composition/Information on ingredients

Substance/Mixture : Mixture

Ingredient	Chemical Name	Chemical Formula	% by weight	CAS No
	Ethanol (Ethyl alcohol)	C ₂ H ₅ OH	10-15	64-17-5

4. First aid measures

4.1 Description of first aid measures

General advice	If you feel unwell, seek medical advice (show the label where possible). First aider needs to protect himself. Move out of dangerous area. Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes immediately.
If inhaled	If breathed in, move person into fresh air. If symptoms persist, call a physician. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If unconscious place in recovery position and seek medical advice.
In case of skin contact	In case of contact, immediately flush skin with soap and plenty of water. Do NOT use solvents or thinners. If skin irritation persists, call a physician.
In case of eye contact	Protect unharmed eye. If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If swallowed	If swallowed, seek medical advice immediately and show this container or label. If swallowed, DO NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Water, Dry chemical, Alcohol-resistant foam, Carbon dioxide (CO ₂)
Unsuitable extinguishing media	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products may be formed under fire conditions (see section 10). Exposure to decomposition products may be a hazard to health.
--------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

5.3 Advice for firefighters

Special protective equipment for firefighters	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Further information	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers. 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. Pay attention to flash back.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Remove all sources of ignition. Avoid contact with skin and eyes. Ensure adequate ventilation, especially in confined areas. Immediately evacuate personnel to safe areas. Avoid inhalation of vapor or mist. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Clean contaminated surface thoroughly.

6.4 Reference to other sections

see chapter: 7, 8, 11, 12 and 13

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling For personal protection see section 8. Do not breathe vapors or spray mist. Avoid contact with skin and eyes. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Take precautionary measures against static discharges.

Advice on protection against fire and explosion Normal measures for preventive fire protection. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Keep away from heat and sources of ignition. Do not smoke. No sparking tools should be used. Electrical equipment should be protected to the appropriate standard.

Dust explosion class not applicable

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep away from direct sunlight.

Advice on common storage Keep away from food, drink and animal feedingstuffs. Do not store together with oxidizing and self-igniting products. Incompatible with oxidizing agents.

Other data No decomposition if stored and applied as directed.

7.3 Specific end uses

no data available

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Control parameters	Basis	Update
ethanol	64-17-5	TWA: 1.920 mg/m ³ , 1.000 ppm *: see chapter 16	GB EH40	2005-04-06

Other information on limit values see chapter 16

8.2 Exposure controls

Engineering measures Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Material Rubber gloves

Remarks Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Eye protection Tightly fitting safety goggles

Skin and body protection Flame retardant antistatic protective clothing
Antistatic boots
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.
General industrial hygiene practice.
Avoid breathing vapors, mist or gas.
Avoid contact with skin, eyes and clothing.
When using do not eat, drink or smoke.
Wash hands before breaks and at the end of workday.
Follow the skin protection plan.
Take off all contaminated clothing immediately.
Wash contaminated clothing before re-use.

Environmental exposure controls

General advice Do not flush into surface water or sanitary sewer system.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

Physical state	Liquid (particle suspension)
Color	White (in suspension)
Odor(threshold)	Alcohol
pH	Not available
Melting Point	Not available
Boiling Point	Not available
Flash Point	(closed cup)37.7°C
Evaporation Rate	Not available
Flammability (Solid, gas)	Not available
LEL/UEL	(Upper)Not available (Lower)Not available
Vapor Pressure	Not available
Vapor Density	Not available
Specific Gravity (relative density)	Not available
Solubility	Not available /Easily suspended to water (hot/cold) and organic solvent (alcohol, etc.)
Partition Coefficient octanol/water	Not available
Decomposition Temperature	Not available
Autoignition temperature	Not available
Viscosity	Not available
Other data	None

10. Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Stability No decomposition if stored and applied as directed.

Reaction with strong oxidizing agents. Vapours may form explosive mixtures with air.

10.4 Conditions to avoid

Heat, flames and sparks. Strong sunlight for prolonged periods.

10.5 Incompatible materials

Materials to avoid Oxidizing agents, Nitric acid, Ammonia

10.6 Hazardous decomposition products

Hazardous decomposition products In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide, Carbon dioxide (CO₂), nitrogen oxides (NO_x)

Thermal decomposition no data available

11. Toxicological information

Acute Toxicity Data	Ethanol	Oral	rat	LD ₅₀	13.7 g/kg
		Dermal	Not available		
		Inhalation (vapor)	rat	LC ₅₀	20,000ppm/10h (31,600ppm/4h)
		Inhalation (mist)	rat	LC ₅₀	63,000ppm/4h (118 mg/l)
Irritancy (corrosive) Data	No information available.				
Eye effects	Ethanol	OECD TG404	rabbit	moderate	
		Draiz test	rabbit	moderately	
		Damage to corneal epithelium. Conjunctival hyperemia can take 1 or 2 days to heal. Severe irritation.			
	Ethanol	Prolonged and/or repeated skin contact may cause irritations and possibly dermatitis. Inhalation of high vapor concentrations may cause irritations to the respiratory system. In case of prolonged inhalation of high vapor concentrations, narcotic effects may occur.			
Respiratory/Skin effects	No information available.				
Germ cell mutagenicity	Ethanol	On rat and mouse, dominant lethality and aneuploidy induction in mice's germ cell have been reported.			
Carcinogenicity	Ethanol	ACGIH: A4 (Not Classifiable as a Human Carcinogen)			
Reproductive Effects	Ethanol	Chronic ingestion of large amounts of alcohol has been reported to cause teratogenic effects on unborn child and other effects.			
Single exposure	Ethanol	Oral ingestion in human may cause acute intoxication effects to central nervous system, and can be fatal. Possible risks of irritation to respiratory tract, drowsiness, or dizziness have been reported.			
Repeated exposure	Ethanol	Prolonged or repeated exposure can produce liver or nerve damage.			

12. Ecological information

12.1 Toxicity

Toxicity to fish LC50 (Poecilia reticulata (guppy)): 11 g/l
Exposure time: 7 d

12.2 Persistence and degradability

Biodegradability Result: Readily biodegradable.

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Adsorbed organic bound halogens (AOX) Remarks: not included

Additional ecological information The product should not be allowed to enter drains, water courses or the soil.

13. Disposal considerations

13.1 Waste treatment methods

Advice on disposal and packaging Disposal:
In accordance with local and national regulations. Do not dispose of waste into sewer. This material and its container must be disposed of as hazardous waste. Do not dispose of together with household waste.
Waste codes should be assigned by the user based on the application for which the product was used.

14. Transport information

ADR

UN number UN 1170
Description of the goods Ethanol
Class 3
Packing group III
Classification Code F1
Hazard identification No 30
Labels 3
Special Provision 144, 601
Limited quantity LQ4
Tunnel restriction code (D/E)
Environmentally hazardous no
Remarks 144 : Aqueous solutions with a maximum of 24% by volume of alcohol are not subject to the regulations.

RID

UN number UN 1170
Description of the goods Ethanol
Class 3
Packing group III
Classification Code F1
Hazard identification No 30
Labels 3
Special Provision 144, 601
Limited quantity LQ4
Environmentally hazardous no
Remarks 144 : Aqueous solutions with a maximum of 24% by volume of alcohol are not subject to the regulations.

IATA

UN number UN 1170
Description of the goods Ethanol
Class 3
Packing group III
Labels 3
Special Provision A3, A58, A180
Packing instruction (cargo aircraft) 364
Environmentally hazardous no
Packing instruction (passenger aircraft) 353
Packing instruction (LQ) Y341
Remarks A58 : Aqueous solutions with a maximum of 24% by volume of alcohol are not subject to the regulations.

IMDG

UN number	UN 1170
Description of the goods	Ethanol
Class	3
Packing group	III
Labels	3
Special Provision	144, 223
EmSNumber 1	F-E
EmSNumber 2	S-D
Marine pollutant	no
Remarks	144 : Aqueous solutions with a maximum of 24% by volume of alcohol are not subject to the regulations.

Special precautions for user

see chapter: 6, 7 and 8

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**ethanol

VOC	Directive 199/13/EC		
	95.5 %		
	VOC content less water: 778.36 g/l		
Directive 96/82/EC	Update: 2003	Quantity 1	Quantity 2
	Highly flammable	5,000 t	50,000 t
Further information	Reserved for industrial and professional use.		

15.2 Chemical Safety Assessment

no data available

16. Other information**Full text of R-phrases referred to under sections 2 and 3**

R10	Flammable.
-----	------------

Full text of H-Statements referred to under sections 2 and 3.

H226	Flammable liquid and vapor.
------	-----------------------------

Other information

*	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.
---	--------------------------------------------------------------------------------------------------------------------

Notice to reader Disclaimer	The information above is believed to be accurate and represents the best information currently available to us. It is provided in good faith without warranty to assist in the proper handling and storage of this product. YMC CO., LTD. makes no representations as to the accuracy or completeness of the information contained herein. Information is supplied on condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will YMC CO., LTD. be responsible for damages of any nature whatever resulting from the use of or reliance upon the information contained herein.
-----------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

SDS Revision Summary:	SDS Creation Date: October 16, 2017
	Revision : 2