

S-MACH ENGINEERING CORPORATION

Messrs. Decorate Interior

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Dear Sirs,

Answers to your questions about Alpha Gel's Characteristics

We would like to answer to your questions about the characteristics of ALPHA GEL as follows.

Q-1: Can the crude oil gelled by ALPHA GEL recover to crude oil by adding new crude oil ?

A-1: Yes. Collect the gelled crude oil into vessels or oil tanks, then add new crude oil on it and stir gelled oil and crude oil. The changed crude oil should be refined as soon as possible before evaporating the volatile compounds, which is experienced in a certain oil leakage accident in Japan. However, it is required to warm up to about 90°C after losing the volatile compounds.

In the case that you will incinerate the gelled crude oil as disposal, it is anxious about generating dioxin, because collected gelled crude oil may contain chlorine in sea water. It will be solved by temperature control of incinerators.

Q-2: Crude oil adhered to boots and bird feathers, etc. can be removed by ALPHA GEL ?

A-2: According to the manufacturer's experiences, it is possible to remove adhered crude oil on boots, vinyl raincoats and oil fences with brushes. The manufacture says it is possible before gelled crude oil solidifying. They have no experience in bird feather. So, it is better to try on site.

Q-3: Does ALPHA GEL contain any heavy metal and harmful compositions?

A-3: No. Please, refer to the attached MSDS of ALPHA GEL-1000 and 1650.

Additional advice by the manufacturer

According to TV and news papers, leaked crude oil looks like to change to mousse-like state. Crude oil changed to mousse-like state can not be gelled with ALPHA GEL.

In this case, it is recommended to collect the mousse-like oil into vessels like tanks and remove sea water by vacuum pumps, then add emulsion breaker into the tanks for separating oil and water. The mousse will increase heavily with time lapse.

It is appreciated if you would understand the above mentioned answers and advice to your questions.

Faithfully yours

S-MACH Engineering Corp.



Zenji Shimamura, General Director

Material Safety Data Sheet (MSDS)

Manufacturer information

A manufacturer : Alpha Japan Co, Ltd.
An address : 2-21-2, fukagawa, koutouku, Tokyo
A phone number : 03-3642-3855
An FAX number : 0120-683-673
Making day : April 1, 2009

Product name (a brand name)

α 1000

Specification of a material

Distinction of a single product / mixture : A mixture
A chemical name : A styrene butadiene block co-polymer
An ingredient and content : An above chief ingredient more than 90%
: There are no environmental pollution of PRTR
method-related chemical substance and content
pertinence
An official daily gazette public announcement reference number
: I fall under Scientific examination method 6-134
(Scientific examination method/ Safe hygiene method)
6-402

CAS NO. 9003-55-8
9003-07-0

United Nations classification and United Nations number : I do not fall

A classification of dangerous balefulness

A name of a classification : I do not fall under a classification standard
Danger : I fall under firefighting method, designated inflammables
Balefulness : There is not special dangerous action to the human body

Environmental influence : There is not no problem for a long time in environment

An emergency step

When I caught sight : When I caught sight of a minute share, please wash it with clean water. If an alien substance seems to be left to a mesh, please receive treatment for an ophthalmologist

When I stuck to skin : There is not special influence to the human body. You may use soap, and please wash the point where I touched if necessary

When I inhaled it : A special step is needless

When I swallowed it : Please wash the whole mouth with water. Please take a medical advice in the case of a large quantity

A step at the time of a fire

A fire extinguishing method : Thermolysis, black smoke by incomplete combustion, carbon monoxide occur, and please wear a tool for protection in the case of fire extinguishing work depending on the situation because danger by these inhalation can occur

Fire extinguishing agent : Water, a bubble, dry chemical, fire extinguishers such as carbon dioxide, fire prevention sand

A step at the time of leakage : With broom, dust final performance or A vacuum, please enter a container for the disposal or reusability

The handling and attention in safekeeping

The handling : Please take measures if necessary so that there is danger that I am charged with static electricity by terms of use

Safekeeping : Please avoid extreme high temperature high humidity to prevent change in qualities

A revelation hedge

Management temperature : Please do not exceed 230 degrees Celsius

The permission density : It is not set Nihon Sangyo hygienics society
It is not set ACGIH

A tool for protection : It is not necessary, but please usually wear protection mask,
protection glasses, protection gloves, dust protective
mask, this safety boots を if necessary

Physics / chemical property

The appearance : White powder

Specific gravity : 0.94

Quantity specific gravity : 0.26

Boiling point, vapor pressure,
volatilization point, melting point, 初留点 : I do not fall

The solubility : It is indissolubility in water

Danger information (Safety / reactivity)

An ignition point : More than 240 degrees Celsius

An ignition point : More than 300 degrees Celsius

An explosion limit : I do not fall

The combustibility : A flammable solid

Ignition characteristics

(Spontaneous combustion, reactivity with water) : I do not fall

The oxidation characteristics : I do not fall

Self-reactivity, explosiveness : I do not fall

Dust explosion characteristics : I do not fall

Stability / reactivity : I am extremely safe

Balefulness information (I include a case about a person, medical information)

Skin is corrosive : Unavailable

Pungency (Skin, eyes) : There is danger that I stimulate some eyes and skin by
contact of long time

Sensitization characteristics : There is no case

Acute toxicity (I include LD-50) : There is no case
The subacute toxicity : There is no case
The dominant toxicity : There is no case
Cancer abiogenesis : There is no case
Original variation characteristics : There is no case
(A microbe, chromosome aberration) : There is no case
Teratogenicity : There is no case
Others (I react with water and include occurring with toxic gas) : There is no case

Environmental influence information

Resolvability : There is no measured value
Accumulation characteristics : There is no measured value
The fish toxicity : It is death rate 0% by an acute toxicity examination by killifish
Others : A material becoming American EPA "3, 3/50 programs" toxic substance and an object of "ozone depletion material regulation" does not use "lead, arsenic, chrome, cadmium, mercury" prescribed in the Air Pollution Control Act, Water Pollution Control Law as the master vice-raw materials which are not used and materials by process of manufacture.

Attention in the disposal : I am based on "law about waste disposal treatment and cleaning" and "law enforcement order" Article 6

Attention in the transportation : When I pile it up, and it is done a rose, I fix whether I am low as possible to prevent collapse of cargo and do it, and please do it.

An applicable law law : 1. It is pertinence than table 4 "appointment inflammables" synthetic resins 3,000kg according to 12 of government ordinance Article 1 about regulation of three dangerous materials of firefighting method Article 9
2. A law about disposal of waste and cleaning

Others

Material Safety Data Sheet is offered to an enterprise to handle as reference information to secure the safe handling about dangerous harmful chymic. An enterprise to handle asks for this after having understood that it is necessary to take the appropriate measures that accepted the actual situation such as the individual handling as reference at your own risk so that it is utilized.

I make this mention content based on a document, information, the data which our company obtained at present, but there can be a thing revised by new knowledge.