

Safety Data Sheet

Customized fuel for heavy machinery SAB

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Product Name: Customized fuel for heavy machinery
SAB
SAB/colored annex
Customized fuel for heavy machinery with high power
Customized fuel for heavy machinery with low pollution
exhaustion gas
Light oil, customized fuel for industrial diesel machinery
using A heavy oil

Main use

Customized fuel for heavy machinery: No use for cars which runs on public road, cars
with number plate and heavy machinery with number plate.

Identification of the substrate

Classification of single product or mixture: Single product

Carbon hydrate from petroleum

Constituent and content: Carbon hydrate from petroleum mainly with C8 to C26 and
additives (colored annex)

Chemical formula, structure formula: Not determined. C₈H₁₈ to C₂₆H₅₄

Official gazette file number: Conform to 9-1700 (Act on the Evaluation of Chemical
Substances and Regulation of Their Manufacture, etc.) and
12-137 (Industrial Safety and Health Act)

CAS-No. 64742-79-6

Classification of United Nations/number of United Nations:

Burning point under 61.0 degrees C: class 3/1202

Burning point over 61.5 degrees C: not applicable/ not
applicable

Industrial Safety and Health Act: SAB 90wt% heating oil base

PRTR Law*

Name of designated chemical substance	Class of designated chemical substance	Number of government ordinance	content
			Average(weight %)
Xylene	The 1 st designated chemical substance	80	1.0

(*Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof)

In addition, PRTR law can be described as act on management promotion of chemical substance.

Classification of hazard and toxicity

Name of classification No applicable in classification standard

Hazards Flammable organic mixture liquid

Toxicity Toxic and hazardous to life if it is drunk
High conc. Vapor may cause boke, headache or dizzy.

Environmental effect In present, no useful information. Degree of environmental pollution (low amount of exhausted gas) is extremely low compared to light oil or other fuel for heavy machinery.
Fits property analysis of regulation in Tokyo, Kanagawa, Chiba and Saitama
Fits regulation of exhaustion gas in 2003

Emergency treatment

Entering an eye After washing an eye with clean water at least 15 minutes and consult to eye doctor

Attatched to skin Wash attatched part sufficiently with water and neutral detergent.

Swallow down Don't have vomiting and consult to doctor.
If polluted in mouth, wash with water sufficiently.

Inhalation Move to place with fresh air.
Cover with blancket to keep body temperature and consult to doctor immediately.
If breath stopped or breath comes down to weak, loosen clothes to maintain an adequate airway and give artificial respiration

Measures in fire

Quenching method In early fire, use powder and CO² gas extinguishing agent in large scale fire, use foam extinguishing agent for air blocking. Pole water may be dangerous by expanding fire.
In touch with high temperature metal surface etc. or leak

from fuel pipe, burning or explosion may occur by generated vapor.

Cool down surrounding apparatuses or machines etc. by watering.

In quenching, do from the windward, wear protective equipment. In the case of putative contacting with skin, wear impermeable protective equipment and gloves.

Restrict access to surroundings of fire besides people involved

Fire extinguishing agent: Misty enhanced liquid, powder, CO² gas and foam is effective.

Dangerous combustion product: Smoke or CO etc. is generated in burning but it is very low quantity compared to light oil.

Measures in leakage

Remove all ignition source rapidly and block leakage from the leakage part

Evacuate people from dangerous area. Prohibit people from entering dangerous zone by roping in it.

Prepare equipment for quenching. Wear protective equipment for quenching in operation.

In small amount, recover by absorbing to soil, sand, sawdust and waste etc.

In large scale, after preventing outflow by banking, cover liquid surface by foam and recover to container etc..

Be careful not to cause secondary disaster or environmental pollution by outflowing to sewage water or river etc.

Ventilate by open windows or doors in the case of leakage in room.

At sea, expand oil fences to prevent diffusion and draw out oil using absorption mat

in case of using drugs, use drugs which meet technical standard determined by Ministry of Land, Infrastructure, Transport and Tourism.

In the case of leakage, notify and inform to related organization rapidly for the purpose of prevention of accident and expansion.

Caution for handling and storage

Handling

In case of handling more quantity than specified quantity, handle in a factory, storage or terminal.

Specified quantity of class 4, 2nd petroleum is under 1000L and 1 fifth of it can be stored without notification(to 1D/M).

New SAB is treated as 2nd petroleum.

Avoid contact with flame, spark, high temperature materials and prevent generation of vapor in surroundings.

Do countermeasure against static electricity and use conductive fatigue and shoes etc..

Don't suck up oil etc. by mouth.

Wear protective equipment in the case of possible contacting skin or entering eyes.

Ventilate enough in handling in a room. Set up explosion-proof type if using ventilation equipment.

Avoid rough handling such as falling a container or shocking etc..

Storage

Store in a cold, dark and well-ventilated place.

Store with label of hazardous materials

Avoid heat, spark, fire and accumulation of static electricity

Use electronic apparatus of explosion-proof type in storage place and ground electronic apparatus.

Avoid contacting halogen, strong acids, alkaline and oxidizer and don't store them in the same place.

Use airtight stopper necessarily if container is opened once.

Handling of container

Don't put empty container under pressure. It may burst under pressure.

Container should not be welded, heated, drilled nor cut. If not, residue may take fire with explosion.

Explosion protection

Regulated concentration No regulation (pursue 2nd petroleum)

Permitted concentration

Japan Society for Occupational Health 3mg/m³ (as mist of mineral oil)

ACGIH 5mg/m³ (as mist of mineral oil)

Countermeasure of equipment: Explosion proof exhauster should be set in indoor work place.

Equipment for washing eyes and body should be set near handling place.

Protection equipment

Protection goggle, protection gloves, protection clothes, protection equipment for breath etc. should be used for necessity.

Physical and chemical properties

Appearance etc.	Transparent light green
Boiling temperature	Over 150 degrees C
Vapor pressure	Under 1kpa (under 0.001kgf/cm ²)
Volatility	Non
Pour point	Under -20 degrees C
Density (15 degrees C g/cm ³)	0.8000 to 0.8015
IBP	Over 150 degrees C
EBP	Under 400 degrees C
Residual carbon in 10% residue of oil	0.01 to 0.10
Solubility/water	Not soluble
Vapor density/air=1	Over 5

Hazards information (stability, reactivity)

Burning point	40 to 80 degrees C
Ignition temperature	About 240 degrees C
Explosion limit	7V/V% (upper limit) to 1V/V% (lower limit)
Ignition quality	
Autogenous ignition, water reactivity	no
Burnability	Yes
Oxidation nature	No
Self-reactivity	No
Stability	Stable
Reactivity	Avoid a strong oxidant and strong alkali

Toxicological Information

Skin corrosion	No available information at present
Irritation (skin, eye)	Liquid cause slight irritation to eye
Sensitization	No available information
Acute toxicity	Oral mouse LD ₅₀ 5.00g/kg Transderm rat LD ₅₀ 3.16g/kg If high concentration vapor inhaled, syndrome of headache, dizziness, fatigue occurs. For its sweet fragrance, bee etc. which seek honeydew come near.
Subacute toxicity	No available information
Chronic toxicity	Long or repeated contact may cause skin stimulation or skin irritation etc.
Carcinogenicity	About carbon hydrate with boiling point of 175 degrees C to 370 degrees C, results of test (skin smear test) which API (American petroleum institute) and American petroleum

company did showed emergence of light tumor or cancer with long latent period. causal association against human effect is not known.

Mutagenicity No available information

Reproductive toxicity No available information

Teratogenicity No available information

Others In case of accidental ingestion, it may stimulate mucosal membrane of stomach and may cause vomition, gastric pain and diarrhea etc.. In case of accidental ingestion and absorption to lung, internal bleeding in lung tissue, pulmonary edema or chemical pneumonia.

Ecological information

Degradability, accumulatability, fish toxicity: No available information

Disposal considerations

In case of burning, in safe place, use method without possibility of harm or damage by burning or explosion and post guard. Follow to the indication of autonomous community. In case of disposal, discard them as special industrial wastes according to related law (Wastes Disposal and Public Cleansing Act, Fire Service Act) etc. consign waste disposal to special managed waste disposer and according to other related laws.

Transport information

Display material name, quantity, hazardous class, Keep Fire Away on transporting vessel. In case of transporting more quantity than indicated quantity, mark of danger should be displayed on transporting car and equipped with quenching equipment. Stuck should be under 3m in road transportation. Consolidation with dangerous material class 1 and class 6. As transporting vessel, goods determined by Hazardous Materials Control Order. Comply with other related laws.

Regulatory information

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. / Fire Service Act class 4, 2nd, 3rd petroleum/ Industrial Safety and Health Act/ Ship Safety Act/ Civil Aeronautics Act/ Act on Port Regulations/ Road Trucking Vehicle Act/ Act for the Prevention of Marine Pollution and Maritime Disasters/ Sewerage Service Act/ Water Quality Pollution Control Act/ Wastes Disposal and Public Cleansing Act

Chemicals Control Promotion Law (PRTR law, July in 1999)
Distribution of material safety data sheet (MSDS) obligated
(1.1.2001).

Post script

Safety data sheet is reference information for safe handling
and background materials for use to take an adequate
measure according to actual condition of individual handling.
It is not a form of guaranty.