
ACTIVAL X-331

1. Identification of the substance or mixture and of the supplier

GHS Product identifier : Actival X331

Recommended use of the chemical and restrictions on use

Recommended use : For industrial use only.

Recommended restrictions : Not known.

Supplier's Details

Distributor Information : Inoova Material Science Sdn. Bhd.

Contact person : admin@inoova.com.my

Telephone/ Fax : +603-3362 1826

Emergency Telephone No. : +603-3362 1826

2. Hazard(s) identification**Emergency Overview****Appearance**

Color: Amber

Form: liquid

Physical state: liquid

Odor: musty

Hazard Statement(s): Combustible liquid.

GHS classification of substance or mixture, and national or regional information**Physical Hazards**

Flammable liquids Category 4

GHS label elements

Hazard symbol(s): No symbol

Signal Word: Warning

Hazard Statement(s): Combustible liquid.

Precautionary statement(s)

Prevention	: Wear protective gloves. Wear eye protection/face protection. Keep away from open flames/hot surfaces. - No smoking.
Response	: not applicable
Storage	: Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do no result in GHS classification	: None
Supplemental label information	: None

3. Composition/information on ingredients

Chemical nature : Polyalkyleneoxidealkoxysilane

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Methanol	67-56-1	<1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

Inhalation	: Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen. Call a physician or poison control center immediately.
Skin Contact	: Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Wash contaminated clothing before reuse. Get medical attention.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion	: If conscious, drink plenty of water. Do not induce vomiting. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

Symptoms	: Product may hydrolyse upon contact with body fluids in the gastrointestinal tract to produce additional methanol; therefore, consider the signs/symptoms of methanol poisoning and also observe the known latency period of several days!
Hazards	: No data available.
Notes to physician	
Treatment	: No data available.

5. Fire-fighting measures

General Fire Hazards	: Do not use water jet as an extinguisher, as this will spread the fire. Use water spray to keep fire-exposed containers cool.
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Means of fire extinguishing

Suitable extinguishing media	: Alcohol resistant foam. Carbon dioxide Dry chemical.
Unsuitable extinguishing media	: Avoid water in straight hose stream; will scatter and spread fire.
Specific hazards arising from the chemical	: No data available.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	Take precautionary measures against static discharges. All equipment used when handling the product must be grounded.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Avoid contact with eyes, skin, and clothing. Avoid contact with liquid and vapors. Use personal protective equipment.
For non-emergency personnel:	No data available. For emergency responders:
Environmental Precautions:	No data available.
Methods and material for containment and cleaning up:	Absorb spillage with suitable absorbent material. Shovel up and place in a container for salvage or disposal.

Notification Procedures: Remove sources of ignition. In case of spills, beware of slippery floors and surfaces.

7. Handling and storage

Precautions for safe handling: Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing mists or vapors. Wash hands after handling.

Conditions for safe storage, including any incompatibilities: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Methanol	PC-STEL	50 mg/m ³	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1) (03 2008)
	PC-TWA	25 mg/m ³	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1) (03 2008)

Biological Limit Values

None of the components have assigned exposure limits.

Appropriate Engineering Controls: Provide eyewash station and safety shower. General (mechanical) room ventilation is expected to be satisfactory if handled at low temperatures or in covered equipment. Provide adequate ventilation if fumes or vapors are generated.

Individual protection measures, such as personal protective equipment

General information: General (mechanical) room ventilation is expected to be satisfactory if handled at low temperatures or in covered equipment.

Eye/face protection: Safety glasses with sideshields

Skin Protection

Hand Protection: Protective gloves made of : Butyl rubber. Neoprene Nitrile rubber. Polyvinyl chloride (PVC).

Other: Safety shoes Wear suitable protective clothing.

Respiratory Protection: Respirator with a vapour filter (EN 141) Avoid inhalation of vapors. In case of

inadequate ventilation, use air-supplied full-mask.

Hygiene measures:

No data available.

9. Physical and chemical properties**Appearance**

Physical state:	liquid
Form:	liquid
Color:	Amber
Odor:	musty
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	< 0 °C
Initial boiling point and boiling range:	> 150 °C (1,013 hPa)
Flash Point:	87 °C (ASTM D 93)
Evaporation rate:	< 1
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits Flammability	
limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	< 1.33 hPa (20 °C)
Vapor density:	> 1
Density:	1.0800 g/cm ³ (25 °C)
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	Reactive.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	No data available.
Specific gravity:	No data available.

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: No data available.

MSDS_CN

Possibility of hazardous reactions:

Hazardous polymerisation does not occur.

Conditions to avoid:

None known.

Incompatible Materials:	Reacts with water or moisture to form: Methanol
Hazardous Decomposition Products:	In case of fire, gives off (emits): Carbon oxides Oxides of silicon. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.
Other information:	No data available.

11. Toxicological information

Information on likely routes of exposure Inhalation:

	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics Inhalation:

	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity

Oral	
Product:	LD 50 (Rat): > 2,000 mg/kg
Dermal	
Product:	LD 50 (Rabbit): > 2,000 mg/kg
Inhalation	
Product:	No data available.
Specified substance(s):	
Methanol	LC50 (Rat, 4.00 h): 6,400 mg/l

Repeated dose toxicity

Product: No data available.

Skin irritation and corrosion

Product: No data available.

Specified substance(s):
Methanol (Rabbit): Corrosive

Serious Eye Damage/Eye Irritation

Product: No data available.

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

Germ Cell Mutagenicity In**vitro**

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure Product:

No data available.

Specific Target Organ Toxicity - Repeated Exposure Product:

No data available.

Aspiration Hazard

Product: No data available.

Other effects:

No data available.

12. Ecological information**Ecotoxicity****Acute hazards to the aquatic environment Fish**

Product: No data available.

Specified substance(s):

Methanol LC50 (Pimephales promelas, 96 h): 28,100 mg/l

Aquatic Invertebrates

Product: No data available.

Chronic hazards to the aquatic environment Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility

Mobility in Soil: No data available.

Known or predicted distribution to environmental compartments

Methanol No data available.

Other Adverse Effects: No data available.

13. Disposal considerations

Disposal methods

Disposal instructions: Can be incinerated when in compliance with local regulations.

Contaminated Packaging: Dispose of as unused product.

14. Transport information

National Regulations

China

Not regulated.

IATA

Not regulated.

IMDG

Not regulated.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

Special precautions for user:

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

15. Regulatory information

National Regulations

The following regulations, rules or standards set forth the requirement for the classification, labeling, use, handling, storage and transportation of chemicals.

Regulations on Safety Administration of Hazardous Chemicals, Decree No.591 of the State Council Catalogue of

Hazardous Chemicals (2015 Version)

Regulation of Safety Use Chemicals at Workplace

Regulations on Labor Protection in Workplaces Where Toxic Products Are Used

GB/T 16483: #Safety data sheet for chemical products - Content and order of sections# GB/T

17519: Guidance on the compilation of safety data sheets for chemical products GB

15258:#General rules for preparation of precautionary label for industrial chemicals#

GB 30000.2 ~ GB 30000.29: Rules for classification and labelling of chemicals

GB 13690:#General rule for classification and hazard communication of chemicals# GB

12268:#List of dangerous goods#

GB 6944:#Classification and code of dangerous goods# GB 190

#Labels for packages of dangerous goods#

GBZ 2.1#Occupational Exposure Limits for Hazardous Agents in the Workplace, Part 1, Chemical Hazardous Agents #

International regulations**Montreal Protocol**

not applicable

Stockholm convention

not applicable

Rotterdam Convention

not applicable

Kyoto Protocol

not applicable

Inventory Status:

Australia AICS:	n (Negative listing)
EU EINECS List:	y (positive listing)
Japan (ENCS) List:	n (Negative listing)
China Inventory of Existing Chemical Substances:	y (positive listing)
Korea Existing Chemicals Inv. (KECI):	y (positive listing)
Canada DSL Inventory List:	y (positive listing)
Canada NDSL Inventory:	n (Negative listing)
New Zealand Inventory of Chemicals:	n (Negative listing)
Philippines PICCS:	n (Negative listing)
US TSCA Inventory:	y (positive listing)
Taiwan. Taiwan inventory (CSNN):	n (Negative listing)

16. Other Information

Issue Date:	2016/06/27
Revision Date:	
Version #:	2.0
Further Information:	No data available.
References:	No data available.

Disclaimer:

Notice to reader

Unless otherwise specified in section 1, Inoova products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives.

Further Information

The information provided in this 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.