

M-Bond 450 Part B

In accordance with: GB/T 16483-2008 and GB/T 17519-2013

www.vpgsensors.com

Date of issue: 27/01/2023 Date of First Issue: 20/03/2012

Version: 5.0 SDS Code: 15178

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product name M-Bond 450 Part B

Recommended use of the chemical and restrictions

on use

Identified uses Adhesive

Uses advised against Anything other than the above.

Details of the supplier of the safety data sheet

Name of Supplier VISHAY MEASUREMENTS GROUP, INC.

Address of Supplier Post Office Box 27777
Raleigh, NC 27611

USA

 Telephone
 919-365-3800

 Fax
 919-365-3945

E-mail <u>mm.us@vpgsensors.com</u>

Emergency telephone number

24 HR. EMERGENCY TELEPHONE NUMBERS (00-1) 703-527-3887 CHEMTREC

SECTION 2: HAZARD OVERVIEW

Emergency overview

Highly flammable liquid and vapour. Amber coloured. Sweetish ketone odor. May be harmful if swallowed. Causes serious eye irritation. Harmful if inhaled. May cause drowsiness or dizziness. May damage fertility. May damage the unborn child. May cause damage to organs. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life. Harmful to aquatic life with long lasting effects. Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. IF exposed or concerned: Call a POISON CENTER/doctor.

Classification of the substance or mixture In accordance with: GB 13690-2009 and GB 30000-2013 Flammable liquid, Category 2; H225 Acute toxicity, Category 5 – Oral; H303

Serious eye damage/irritation, Category 2; H319 Acute toxicity, Category 4 - inhalation; H332

Specific target organ toxicity — single exposure, Category 3 (Narcotic effects);

H336

Reproductive toxicant, Category 1B; H360FD

Specific target organ toxicity — single exposure, Category 2; H371 Specific target organ toxicity — repeated exposure Category 1; H372 Hazardous to the aquatic environment - Acute, Category 2; H402 Hazardous to the aquatic environment - Chronic, Category 3; H412

Label elements

Product name M-Bond 450 Part B
Contains: 2-Ethovyethanol Z 一醇

ontains: 2-Ethoxyethanol 乙二醇单乙醚: 50 – 55%

Butanone 2-丁酮: 25 -30%

4,4'-Sulfonyldianiline 4,4'-磺酰基双苯胺: 15 - 20%

Xylene 二甲苯: 1 − 10%

Boron trifluoride ethylamine complex 三氟化硼乙胺: 0.1 - 0.5%

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Hazard Pictogram(s)







Signal Word(s) DANGER

Hazard Statement(s) H225: Highly flammable liquid and vapour.

H303: May be harmful if swallowed. H319: Causes serious eve irritation.

H332: Harmful if inhaled.

H336: May cause drowsiness or dizziness.

H360FD: May damage fertility. May damage the unborn child.

H371: May cause damage to organs.

H372: Causes damage to organs through prolonged or repeated exposure.

H402: Harmful to aquatic life.

H412: Harmful to aquatic life with long lasting effects.

Precautionary Statement(s)

Response

Storage

Prevention P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P233: Keep container tightly closed.

P240: Ground and bond container and receiving equipment.

P241: Use explosion proof electrical equipment.

P242: Use non-sparking tools.

P243: Take action to prevent static discharges. P260: Do not breathe mist/vapours/spray.

P264: Wash hands and exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/eye protection/face protection.

P303+P361+P353: IF ON SKIN or hair: Take off immediately all contaminated

clothing. Rinse skin with water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. P308+P311: IF exposed or concerned: Call a POISON CENTER/doctor.

P370+P378: In case of fire: Use foam to extinguish.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

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

P405: Store locked up.

Disposal P501: Dispose of contents in accordance with local, state or national legislation.

Other hazards Vapours can form explosive mixtures with air.

Main Symptoms Causes serious eye irritation. May cause an allergic skin reaction. Suspected of

causing cancer.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances - not applicable

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Mixtures Substances in preparations / mixtures

GHS Classification GB 30000-2013

Chemical identity of the	通用名	浓度或浓度范围	CAS No.	EC No.	Hazard classification
substance 2-Ethoxyethanol 乙二醇单乙醚		50 - 55	110-80-5	203-804-1	Flammable liquid, Category 3; H226 Acute Toxicity, Category 4; H302 Acute Toxicity, Category 4; H332 Reproductive toxicant, Category 1B; H360FD
Butanone 2-丁酮	-	25 - 30	78-93-3	201-159-0	Flammable liquid, Category 3; H226 Serious eye damage/irritation, Category 2; H319 Specific Target Organ Toxicity — Single Exposure, Category 3 H336
4,4'-Sulfonyldianiline 4,4'-磺酰基双苯 胺	-	15 – 20	80-08-0	201-248-4	Acute Toxicity, Category 4; H302 Specific Target Organ Toxicity — Single Exposure, Category 2; H371 (blood) Specific target organ toxicity — repeated exposure, Category 1; H372 (Testes, epididymis) Specific target organ toxicity — repeated exposure, Category 2; H373 (blood, spleen, liver) Hazardous to the aquatic environment, Chronic, Category 2; H411
Xylene 二甲苯	-	1 - 10	1330-20-7	215-535-7	Flammable liquid, Category 3; H226 Aspiration toxicity, Category 1; H304 Acute Toxicity, Category 4; H312 Skin corrosion/irritation, Category 2; H315 Serious eye damage/irritation, Category 2; H319 Acute Toxicity, Category 4; H332 Specific Target Organ Toxicity — Single Exposure, Category 3 : H335 Specific target organ toxicity — repeated exposure, Category 2; H373 Hazardous to the aquatic environment, Acute, Category 2; H401 Hazardous to the aquatic environment, Chronic, Category 3; H412

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Boron trifluoride ethylamine complex 三氟化硼乙胺	-	0.1 - 0.5	75-23-0	200-852-5	Acute Toxicity, Category 4; H302 Acute Toxicity, Category 4; H312 Skin corrosion/irritation, Category 2; H315 Serious eye damage/irritation, Category 2; H319 Specific Target Organ Toxicity — Single Exposure, Category 3 H335
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No other components or impurities which will influence the classification of the product

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Self-protection of the first aider

Inhalation

Skin contact

Eye contact

Ingestion

Most important symptoms and effects, both acute and delayed

Indication of immediate medical attention and special treatment needed, if necessary

Avoid breathing mist/vapours/spray. Ensure adequate ventilation. Wear suitable protective clothing. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Avoid contact with skin. Contaminated clothing should be laundered before reuse. Do not use mouth-to-mouth resuscitation. Eyewash facilities should be stationed close to workplace where possible. IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN: Gently wash with plenty of soap and water. Remove contaminated clothing and wash clothing before reuse. If irritation (redness, rash, blistering) develops, get medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Rinse mouth. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. If symptoms occur obtain medical attention. May be harmful if swallowed. Causes serious eye irritation. Harmful if inhaled. May cause drowsiness or dizziness. May damage fertility. May damage the unborn child. May cause damage to organs. May cause damage to organs through prolonged or repeated exposure.

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media

Special hazards arising from the substance or mixture

Special protective equipment and precautions for fire fighters

As appropriate for surrounding fire. Extinguish preferably with foam, carbon dioxide or dry chemical.

Do not use water jet. Direct water jet may spread the fire.

Highly flammable liquid and vapour. Vapours can form explosive mixtures with air. Containers may explode when involved in a fire. Keep container(s) exposed to fire cool, by spraying with water. Thermal decomposition will evolve toxic and corrosive vapours: Carbon dioxide, Carbon monoxide Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. Sealed containers may rupture explosively if hot.

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing mist/vapours/spray. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See Section: 8. The vapour is heavier than air; beware of pits and confined spaces.

Environmental precautions

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses

Methods and material for containment and cleaning up

Ensure suitable personal protection during removal of spillages. Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. Do NOT absorb in saw-dust or other combustible absorbents. Transfer to a lidded container for disposal or recovery. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste. Allow small spillages to evaporate provided there is adequate ventilation.

Large spillages:

Evacuate the area and keep personnel upwind. Notify police and fire brigade as

soon as possible.

Preventive measures to prevent secondary disasters

Remove all ignition sources. Prevent spread over a wide area (e.g. by containment or oil barriers). Cover drains.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Ensure adequate ventilation. Avoid breathing mist/vapours/spray. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See Section: 8. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Do not use sparking tools. Do not spray on an open flame or other ignition source. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Ground/bond container and receiving equipment. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking. Keep away from direct sunlight. Do not reuse

Conditions for safe storage, including any incompatibilities

empty containers.

Storage temperature Store in a well-ventilated place. Keep cool.

Storage life Stable under normal conditions.

Incompatible materials Keep away from: Strong oxidising agents, Strong acids and alkali.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

SUBSTANCE	CAS No.			Note	
		MAC	PC-TWA	PC-STEL	
Butanone 2-丁酮	78-93-3	-	300	600	-
2-Ethoxyethanol 2-乙氧基乙醇	110-80-5	-	18	36	Skin
Xylene(all isomers) 二甲苯 全部异构体	1330-20-7	-	50	100	-

Source: GBZ 2.1-2019

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Biological Exposure Indices

SUBSTANCE		CACNA	Biological Monitoring Indicator		职业接触生物限	Sampling	Notes
中文名	英文名	CAS No.	中文名	英文名	值	Time	
丁酮	Butanone	78-93-3	丁酮(Urine)	Butanone in urine	2 mg/L	工作班末	ACGIH
二甲苯	Xylene(all isomers)	1330-20- 7	尿中甲基马尿酸	Methylhippuric acids in urine	0.3 g/g Cr或 0.4 g/L	工作班末	GBZ 2.1-2019

Source: ACGIH, 2021; GBZ 2.1-2019

Appropriate engineering controls

Ensure adequate ventilation or use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Local exhaust recommended. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Eyewash facilities should be stationed close to workplace where possible.

Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable. Avoid contact with skin, eyes or clothing. Avoid breathing mist/vapours/spray. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection



Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

Skin protection



Hand protection:

Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: PVC / Nitrile rubber.

During full contact:

Protective index 6, corresponding > 480 minutes of permeation time according to

Nitrile rubber (Minimum thickness: 0.33 mm) Butyl rubber (Minimum thickness: 0.5 mm)

During splash contact:

Polychloroprene - CR (Minimum thickness: 0.5 mm)

Unsuitable gloves materials:

Natural rubber, Polyvinyl chloride - PVC.

Body protection:

Wear dustproof working clothes. Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection. A suitable mask with filter type A (EN141 or EN405) may be appropriate.

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Respiratory protection



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High concentrations: Wear suitable respiratory equipment. Recommended: Self-contained breathing apparatus (DIN EN 137)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Amber coloured Liquid Odour Sweetish ketone odor. pH (Concentration) Not established. Melting point/freezing point Not established. Initial boiling point and boiling range (\mathbb{C}) Not established. Not established. Flash point (℃) Upper/lower flammability or explosive limits Not established. Vapour Pressure (mm Hg) Not established. Vapour Density (Air=1) Not established. Relative density $0.89 \text{ g/cm}^3 \text{ (H2O} = 1)$ Solubility(ies) Not established. Partition Coefficient (n-Octanol/water) Not established.

Auto Ignition Point ($^{\circ}$) not applicable - Mixture Decomposition Temperature ($^{\circ}$) Not established.

not applicable - Mixture

Additional properties

Viscosity (mPa. s)

Not established.

Evaporation rate

Not established.

Explosive properties Not explosive. Vapours can form explosive mixtures with air.

Oxidising properties Not established.

VOC value 84%

SECTION 10: STABILITY AND REACTIVITY

Reactivity Stable under normal conditions.

Chemical stability Stable under normal conditions. Hazardous polymerisation will not occur.

Possibility of hazardous reactionsVapour is explosive in air at temperatures higher than the flash point. Vapours are heavier than air and may travel considerable distances to a source of ignition and

flashback

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking. Keep from direct sunlight. Do not spray on an open flame or other ignition source. Take precautionary measures against static discharge.

Incompatible materials Strong oxidising agents, Strong acids and alkali.

Highly flammable liquid and vapour. May decompose in a fire giving off toxic

fumes. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. In confined spaces, sewers, etc., the vapours may collect to form explosive mixtures with air. Decomposition products: Carbon

monoxide, Carbon dioxide, aldehydes, acids.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects (Substances in preparations / mixtures)

Acute toxicity - Ingestion Mixture: Acute toxicity, Category 5 – Oral; H303: May be harmful if swallowed.

Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg

bw/day

2-Ethoxyethanol Acute toxicity, Category 4 – Oral; H302: Harmful if swallowed.

乙二醇单乙醚 LD50 > 1400 mg/kg bw/day

危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

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4'-Sulfonyldianiline Acute toxicity, Category 4 – Oral; H302: Harmful if swallowed.

4,4'-磺酰基双苯胺 LD50 > 1200 mg/kg bw/day

EU Data: Harmonised Classification/ ECHA registration dossier

Boron trifluoride ethylamine complex 三氟化硼乙胺 Acute toxicity, Category 4 – Oral; H302: Harmful if swallowed.

危险化学品目录(2015 版)

EU Data: ECHA registration dossier

Acute toxicity - Inhalation Mixture: Acute toxicity, Category 4 - inhalation; H332: Harmful if inhaled.

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 10 - <20 mg/l.

(Vapour)

2-Ethoxyethanol Acute toxicity, Category 4 - inhalation; H332: Harmful if inhaled.

乙二醇单乙醚 LC50:7.3 mg/kg

危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

Xylene 二甲苯 Acute toxicity, Category 4 - inhalation; H332: Harmful if inhaled.

LC50:29 mg/kg

危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

Acute toxicity - Skin contactMixture: Based upon the available data, the classification criteria are not met.Skin corrosion/irritationMixture: Based upon the available data, the classification criteria are not met.Serious eye damage/irritationMixture: Serious eye damage/irritation, Category 2; H319: Causes serious eye

irritation.

Butanone 2-丁酮 Serious eye damage/irritation, Category 2; H319: Causes serious eye irritation.

Test Result: Irritating to eyes. (OECD 405)

危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

 $\chi_{ylene} \equiv \mp \pm$ Serious eye damage/irritation, Category 2; H319: Causes serious eye irritation.

Test Result: Irritating to eyes.(rabbit) (EU Method B.4)

危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

Boron trifluoride ethylamine complex 三氟化硼乙胺 Serious eye damage/irritation, Category 2; H319: Causes serious eye irritation.

Test Result: Irritating to eyes. (rabbit) (Unnamed publication, 1979)

危险化学品目录(2015版)

EU Data: ECHA registration dossier

Mixture: Based upon the available data, the classification criteria are not met.

Mixture: Based upon the available data, the classification criteria are not met.

Mixture: Based upon the available data, the classification criteria are not met.

Mixture: Reproductive toxicant, Category 1B; H360FD: May damage fertility. May

damage the unborn child.

2-Ethoxyethanol Reproductive toxicant, Category 1B; H360FD: May damage fertility. May damage

乙二醇单乙醚 the unborn child.

Developmental toxicity NOAEL: 23 mg/kg/day (oral)

Developmental toxicity LOAEL(C): 37.4 mg/kg/day (inhalation)

危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

Mixture:

Specific target organ toxicity — single exposure, Category 3 (Narcotic effects);

H336

Specific target organ toxicity — single exposure, Category 2; H371

Butanone 2-T is Specific target organ toxicity — single exposure, Category 3 (Narcotic effects);

H336: May cause drowsiness or dizziness.

危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

4'-Sulfonyldianiline Specific target organ toxicity — single exposure, Category 2; H371: May cause

4,4'-磺酰基双苯胺 damage to organs: blood

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Respiratory or skin sensitisation

Germ cell mutagenicity

Reproductive toxicity

STOT - single exposure

Carcinogenicity



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危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

Xylene 二甲苯 Specific target organ toxicity — single exposure, Category 3; H335: May cause

respiratory irritation.

危险化学品目录(2015版)

EU Data: ECHA registration dossier

Specific target organ toxicity — single exposure, Category 3; H335: May cause Boron trifluoride ethylamine complex 三氟化硼乙胺

respiratory irritation. ECHA registration dossier

Mixture:

Specific target organ toxicity — repeated exposure Category 1; H372: Causes

damage to organs through prolonged or repeated exposure.

Specific target organ toxicity — repeated exposure Category 1; H372: Causes 4,4'-Sulfonyldianiline 4,4'-磺酰基双苯胺

damage to organs through prolonged or repeated exposure. (Testes, epididymis) Specific target organ toxicity — repeated exposure Category 2; H373: May cause damage to organs through prolonged or repeated exposure. (blood,

spleen, liver)

危险化学品目录(2015版)

EU Data: Harmonised Classification/ ECHA registration dossier

Mixture: Based upon the available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Aspiration hazard

Other information

STOT - repeated exposure

Persistence and degradability **Bioaccumulative potential**

Mobility in soil Other adverse effects Based upon the available data, the classification criteria are not met.

No data for the mixture as a whole. No data for the mixture as a whole.

No data for the mixture as a whole No data for the mixture as a whole.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods This material and its container must be disposed of as hazardous waste. Dispose

of wastes in an approved waste disposal facility. Dispose of contents in

accordance with local, state or national legislation.

Packaging waste Contaminated packages must be completely emptied and can be re-used

following proper cleaning. Handle contaminated packages in the same way as

the substance itself.

SECTION 14: TRANSPORT INFORMATION

UN proper shipping name

Transport hazard class(es)

Environmental hazards

UN number

Packing group

ADR/RID/ JT/T 617-2018/陆运

UN 1133 ADHESIVES containing

flammable liquid

3

Ш Not applicable ADHESIVES containing flammable liquid

3

IMDG/海运

UN 1133

Ш Not classified as a

Marine Pollutant.

ICAO/IATA/空运 UN 1133

ADHESIVES containing flammable liquid

3 Ш

Not applicable

Special precautions for user Transport in bulk according to Annex II of Marpol and the IBC Code

See Section: 2 Not applicable

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SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Catalogue of Hazardous Chemicals Listed:

Butanone 2-丁酮

2-Ethoxyethanol 乙二醇单乙醚

Butanone 2-丁酮 Xylene 二甲苯

Catalogue of Toxic Chemicals Restricted to be

Imported/Exported

Catalogue of Prohibited Chemicals

List of Priority Chemicals for Prevention and Control Inventory of Existing Chemical Substances in China

(IECSC)

All chemicals are not listed

All chemicals are not listed All chemicals are not listed

Listed:

Butanone 2-丁酮

2-Ethoxyethanol 乙二醇单乙醚

4,4'-Sulfonyldianiline 4,4'-磺酰基双苯胺

Xylene 二甲苯

Boron trifluoride ethylamine complex 三氟化硼乙胺

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Not applicable – $V1.0\,$

References: Existing Safety Data Sheet (SDS), 危险化学品目录(2015 版)

Harmonised Classification(s) for Butanone (CAS No. 78-93-3), 2-Ethoxyethanol (CAS No. 110-80-5), 4,4'-Sulfonyldianiline (CAS No. 80-08-0),

Xylene (CAS No. 1330-20-7)

Existing ECHA registration(s) for Butanone (CAS No. 78-93-3), 2-Ethoxyethanol (CAS No. 110-80-5), 4,4'-Sulfonyldianiline (CAS No. 80-08-0),

Xylene (CAS No. 1330-20-7), Boron trifluoride ethylamine complex (CAS No. 75-23-0)

Legend

ADR ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL Derived no effect level

IATA IATA: International Air Transport Association
ICAO ICAO: International Civil Aviation Organization
IMDG IMDG: International Maritime Dangerous Goods

LTEL Long term exposure limit

PBT PBT: Persistent, Bioaccumulative and Toxic

PNEC Predicted No Effect Concentration

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID RID: Regulations concerning the international railway transport of dangerous goods

STEL Short term exposure limit

vPvB vPvB: very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Disclaimers

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