



Safety Data Sheet



SDS Revision
Date: 03/01/2023

NO.29CN

1. CHEMICALS AND COMPANY IDENTIFICATION

Chemical Name : NO.29CN
Other Names : -
Use recommendations and limitations : See Technical Data Sheet.
Name, addresses, and phone numbers of the manufacturer, importer or supplier : NANPAO RESINS VIETNAM ENTERPRISE LRD. NO. 10 Thong Nhat Road, Song Than 2 Industrial Zone, Binh Duong Province, Viet Nam. +84-274-3790378 /Fax: +84-274-3790377(Vietnam factory)
Emergency contact phone numbers/fax numbers : +84-274-3790378 /Fax: +84-274-3790377(Vietnam factory)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture Flammable Liquid, category 2;H225 Serious eye damage / eye irritation, category 2;H319 Single target organ toxicity, single exposure category 3;H336		Highly Flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.
Label contents: Classification of hazards in Taiwan		
Pictograms:		
		
Flame		Exclamation Mark
Signal Word: Danger		
Hazard Statements : H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation. H336 May cause drowsiness and dizziness.		
Precautionary Statements : [Prevention]: P210 Keep away from heat, sparks, open flames, hot surfaces - No smoking. P233 Keep container tightly closed.		

P235 Keep cool.

P240 Ground, bond container and receiving equipment.

P241 Use explosion-proof electrical, ventilating, light, equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust, fume, gas, mist, vapors, spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves, eye protection, face protection.

[Response]:

P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.

P304+312 IF INHALED: Call a poison center or doctor or physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P337+313 If eye irritation persists: Get medical advice or attention.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards : This product contains no PBT/vPvB chemicals.

3. INGREDIENTS IDENTIFICATION INFORMATION

MIXTURE :

This product contains the following substances that present a hazard within the regulations of Taiwan.

Chemical Property :

Chemical Name	CAS Number	Concentration or concentration ranges (% of contents)	Classification according to regulation in Taiwan*
Methyl acetate	CAS Number: 0000079-20-9	30 – 40	Flammable Liquid, category 2;H225 Serious eye damage / eye irritation, category 2;H319

	EC No.: 201-185-2 Index No.: 607-021-00-X		Single target organ toxicity, single exposure category 3;H336
Ethyl acetate	CAS Number: 0000141-78-6 EC No.: 205-500-4 Index No.: 607-022-00-5	30 - 40	Flammable Liquid, category 2;H225 Serious eye damage / eye irritation, category 2;H319 Single target organ toxicity, single exposure category 3;H336
Methyl ethyl ketone	CAS Number: 0000078-93-3 EC No.: 201-159-0 Index No.: 606-002-00-3	25 - 35	Flammable Liquid, category 2;H225 Serious eye damage / eye irritation, category 2;H319 Single target organ toxicity, single exposure category 3;H336

Non-hazardous Components

Ingredient/Chemical Designations	Weight %	GHS Classification
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4. FIRST-AID MEASURES

The first-aid measures for different exposure routes :
General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation : Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Skin contact : Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Eye contact : Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Ingestion : If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.
Most important symptoms and hazardous effects : General : Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Inhalation :

May cause drowsiness or dizziness.

Eye contact :

Causes serious eye irritation.

Skin contact :

No available information

The protection of first-aiders :

Wear C-class protective equipment and stay in a safe area to implement first aid.

Notes to physicians :

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable fire extinguishing media :

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.

Special hazards may be encountered during fire-fighting :

Hazardous decomposition: Carbon Dioxide, Carbon Monoxide

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

Keep container tightly closed.

Keep cool.

Ground, bond container and receiving equipment.

Use explosion-proof electrical, ventilating, light, equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust, fume, gas, mist, vapors, spray.

Special fire-fighting methods :

No available information.

Special equipment and protections for fire-fighters :

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full facepiece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :

Put on appropriate personal protective equipment (see section 8).

Environmental precautions :

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Methods for cleaning up :

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8. Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

7. SAFE HANDLING AND STORAGE MEASURES

Handling :

See section 2 for further details. - [Prevention]:

Storage :

Handle containers carefully to prevent damage and spillage.

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

8. EXPOSURE CONTROLS MEASURES

Engineering Controls :

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Control parameters					
Ingredient	8 hours time weighted average exposure limits	Short-term exposure limits	Maximum exposure limits	Other Regulations	
0000078-93-3 / Methyl ethyl ketone	200 ppm TWA; 590 mg/m3 TWA	250 ppm 737.5 mg/m3	0.02 ppm, 0.2 mg/m3	ACGIH	TWA: 50 ppmSTEL: 100 ppm
				NIOSH	TWA 200 ppm (590 mg/m3) ST 300 ppm (885 mg/m3)
0000079-20-9 / Methyl acetate	200 ppm TWA; 606 mg/m3 TWA	250 ppm 757.5 mg/m3	No available information	ACGIH	TWA: 200 ppmSTEL: 250 ppm
				NIOSH	TWA 200 ppm (610 mg/m3) ST 250 ppm (760 mg/m3)
0000141-78-6 / Ethyl acetate	400 ppm TWA; 1440 mg/m3 TWA	500 ppm 1440 mg/m3	No available information	ACGIH	TWA: 150 ppm
				NIOSH	TWA 400 ppm (1400 mg/m3)
Ingredient		BEI			
0000078-93-3 /Methyl ethyl ketone (Methyl ethyl ketone)		The MEK in urine after work is 2mg/L (Ns)			
0000079-20-9 /Methyl acetate (Methyl acetate)		No available information			
0000141-78-6 /Ethyl acetate (Ethyl acetate)		No available information			
Personal protective equipment :					

Respiratory protection :

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Hand protection :

Protective gloves recommended.

Eye protection :

Protective safety glasses recommended

Skin and body protection :

Avoid skin contact.

Hygiene measures :

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (state, color, etc.) : Colorless transparent Liquid	Odor : Like ketone
Odor threshold : No available information	Melting point : No available information
pH value : No available information	Boiling point / Boiling range : 70.6 °C
Flammability (solid, liquid) : No available information	Flashpoint: Test method(Open cup or Close cup): -6 °C (Close cup)
Decomposition temperature : No available information	Explosion limits : 1.8% - 16%
Auto-ignition temperature : 429°C	Vapor Density : 2.88 (Air=1)
Vapor pressure : 109mmHg(20°C)	Solubility : Insoluble
Density : 0.83	Evaporation rate : 3.6 (Butyl Acetate=1)
Octanol-Water partition coefficient : No available information	Explosive properties : No available information
Oxidising properties : No available information	Odor threshold (Detect) : 2-180 ppm
Odor threshold (Sense) : 5.4-300 ppm	

10. STABILITY AND REACTIVITY

Reactivity : Hazardous Polymerization will not occur.
Chemical stability : Stable under normal circumstances.
Possible hazardous reactions occurring under specific conditions : No available information
Conditions to avoid : Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Materials to avoid : No data available.
Hazardous decomposition products : Carbon Dioxide, Carbon Monoxide

11. TOXICOLOGICAL INFORMATION

Exposure routes/symptom :		
Exposure routes	Category	Symptom
Serious eye damage/irritation	2	Causes serious eye irritation.
STOT-single exposure	3	May cause drowsiness or dizziness.

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapour LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Methyl ethyl ketone - (78-93-3)	No available information	6,480.00, Rabbit - Category: NA	32.00, Mouse - Category: NA	No available information	No available information
Methyl acetate - (79-20-9)	6,482.00, Rat - Category: NA	>2,000.00, Rat - Category: 5	No available information	No available information	No available information
Ethyl acetate - (141-78-6)	4,934.00, Rat - Category: 5	20,001.00, Rabbit - Category: NA	58.60, Rat - Category: NA	No available information	No available information

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Carcinogen Data			
CAS No.	Ingredient	Source	Value
0000078-93-3	Methyl ethyl ketone	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000079-20-9	Methyl acetate	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000141-78-6	Ethyl acetate	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
Chronic toxicity or long term toxicity :			

12. ECOLOGICAL INFORMATION

Ecotoxicity				
No additional information provided for this product. See Section 3 for chemical specific data.				
Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l	Biodegradability %
Methyl ethyl ketone - (78-93-3)	2,993.00, Pimephales promelas	308.00, Daphnia magna	2,029.00 (96 hr), Pseudokirchnerella subcapitata	98.00
Methyl acetate - (79-20-9)	350.00, Danio rerio	1,026.70, Daphnia magna	120.00 (72 hr), Desmodesmus subspicatus	70.00
Ethyl acetate - (141-78-6)	230.00, Pimephales promelas	100.00, Daphnia magna	>100.00 (72 hr), Desmodesmus subspicatus	60.00
Persistence and degradation :				
There is no data available on the preparation itself.				
Organism accumulation :				
No available information				
Movement through soil, Koc :				
No available information				
Results of PBT and vPvB assessment :				
This product contains no PBT/vPvB chemicals.				
Other negative effects :				
No available information				

13. WASTE DISPOSAL MEASURES

Methods of waste disposal :
Observe all federal, state and local regulations when disposing of this substance.

14. TRANSPORT INFORMATION

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
United Nation number (UN No)	UN1993	UN1993	UN1993
UN proper shipping name	Flammable liquids, n.o.s.	Flammable liquids, n.o.s., (Methyl ethyl ketone, Ethyl acetate, Methyl acetate)	Flammable liquids, n.o.s., (Methyl ethyl ketone, Ethyl acetate, Methyl acetate)
Transport hazard classification	DOT Hazard Class: 3	IMDG: 3 Sub Class: Not Applicable	Air class: 3
Packing group	II	II	II
ERG Guide No.	128		
Ocean contaminants (Yes/No)	No		
Specific transport measures and precautionary conditions :	No available information		

15. REGULATORY INFORMATION

Applicable regulations :

Occupational Safety and Health Act

Toxic and Concerned Chemical Substances Control Act

Standards of Permissible Exposure Limits of Airborne Hazardous Substances in Workplace

Regulations for the Labeling and Hazard Communication of Hazardous Chemicals

Regulations Governing Designating and Handling of Priority Management Chemicals

Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste

Toxic and Concerned Chemical Substances Transportation Management Regulations:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Taiwan - Priority Management Chemicals - Carcinogenic, Mutagenic, and Reproductive Toxic (CMR) Substances:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Taiwan - Priority Management Chemicals - Substances with Physical and Health Hazards:

Ethyl acetate

Methyl acetate

Methyl ethyl ketone

Organic Solvents, Taiwan OSHA:

Ethyl acetate

Mehtyl acetate

Methyl ethyl ketone

Specified Chemical Substances, Taiwan OSHA:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Specified Management Substances, Taiwan OSHA:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Jobsite Monitoring for Organic Solvents, Taiwan OSHA:

Ethyl acetate

Mehtyl acetate

Methyl ethyl ketone

Jobsite Monitoring for Specified Chemical Substance, Taiwan OSHA:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Monitoring Records kept for 30 years, Taiwan OSHA:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. OTHER INFORMATION

Reference	1. Department of Occupational Safety and Health, GHS Chemical Global Harmonization System website (http://ghs.osha.gov.tw/CHT/masterpage/index_CHT.aspx) 2. Environmental Protection Department of the Executive Yuan Department of Toxic Chemical Substances (http://www.epa.gov.tw/np.asp?ctNode=31422&mp=epa) 3. The website of the European Chemical Agency. (http://echa.europa.eu/)
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