

**TA No: HSTA20210017**

**TRANSPORT APPROVAL FOR HAZARDOUS SUBSTANCES  
ENVIRONMENTAL PROTECTION AND MANAGEMENT (HAZARDOUS SUBSTANCES)  
REGULATIONS**

Under Regulation 4 of the Environmental Protection And Management (Hazardous Substances) Regulations, Transport Approval is hereby granted to :-

QUEK LENG CHUANG, holder of Hazardous Substances Licence No :HSL20210017

M/S ENVIRONMENTAL SOLUTIONS (ASIA) PTE LTD  
101 TUAS SOUTH AVENUE 2  
SINGAPORE 637226

to transport between the approved hours of 9.00am to 5.00pm on Monday to Saturday (except public holidays), only along the following approved routes (in both direction) :-

- R2 KEPPEL RD >TELOK BLANGAH RD >PASIR PANJANG RD >WEST COAST HIGHWAY >JLN BUROH >JURONG INDUSTRIAL AREA >TUAS INDUSTRIAL AREA
- R4 KEPPEL RD >TELOK BLANGAH RD >PASIR PANJANG RD >WEST COAST HIGHWAY >CLEMENTI RD >UPP BT TIMAH RD >WOODLANDS RD >WOODLANDS IND PARK D
- R10 KEPPEL ROAD >TELOK BLANGAH ROAD >PASIR PANJANG ROAD >WEST COAST HIGHWAY >CLEMENTI ROAD >UPPER BUKIT TIMAH ROAD >JALAN ANAK BUKIT >PIE >TPE >PASIR RIS DRIVE 12 >PASIR RIS DRIVE 1 >PASIR RIS WAFER FAB PARK
- R28 TUAS INDUSTRIAL AREA >JURONG INDUSTRIAL AREA >JALAN BUROH >WEST COAST HIGHWAY >CLEMENTI ROAD >UPPER BUKIT TIMAH ROAD >WOODLANDS ROAD >WOODLANDS INDUSTRIAL PARK D
- R37 TUAS INDUSTRIAL AREA >JURONG INDUSTRIAL AREA >UPPER JURONG ROAD >PAN-ISLAND EXPRESSWAY >TAMPINES EXPRESSWAY >PASIR RIS DRIVE 12 >PASIR RIS DRIVE 1 >PASIR RIS WAFER FAB PARK
- R47 JURONG INDUSTRIAL AREA >TUAS INDUSTRIAL AREA
- R55 TUAS CHECKPOINT >TUAS INDUSTRIAL AREA >JURONG INDUSTRIAL AREA
- R63 TUAS INDUSTRIAL AREA >JURONG INDUSTRIAL AREA >PAN-ISLAND EXPRESSWAY >CENTRAL EXPRESSWAY >ANG MO KIO AVE 5 >ANG MO KIO IND PARK 2
- R92 TUAS CHECKPOINT >TUAS WEST ROAD >PIONEER ROAD >JALAN BUROH >JURONG PIER ROAD >JURONG ISLAND HIGHWAY
- R93 KEPPEL RD >TELOK BLANGAH RD >PASIR PANJANG RD >WEST COAST HIGHWAY >JLN BUROH >JURONG INDUSTRIAL AREA >JURONG ISLAND HIGHWAY

**Approved Small Packagings Transportation**

Hazardous Substances

Max Capacity/Trip

Approved routes to be used

HYDROCHLORIC ACID (35%)	240KG/MAX 22MT	R4 , R10 , R28 , R37 , R92 , R93
HYDROCHLORIC ACID (35%)	25KG/MAX 22MT	R4 , R10 , R28 , R37 , R92 , R93
SULPHURIC ACID (99%)	350KG/MAX 22MT	R2 , R55
SULPHURIC ACID (99%)	40KG/MAX 22MT	R2 , R55

### **Approved Bulk Packagings Transportation**

<u>Hazardous Substances</u>	<u>Max Capacity/Trip</u>	<u>Approved routes to be used</u>
HYDROCHLORIC ACID (35%)	1,100KG/MAX 22MT	R2 , R55
HYDROCHLORIC ACID (35%)	1,100KG/MAX 10MT	R47
HYDROCHLORIC ACID (35%)	20MT/MAX 20MT	R47
HYDROCHLORIC ACID (35%)	22MT/MAX 22MT	R2 , R55
SODIUM HYDROXIDE (50%)	1,000KG/MAX 20MT	R2 , R55 , R63
SULPHURIC ACID (99%)	1,800KG/MAX 22MT	R2 , R55

### **CONDITIONS**

- 1 Transportation of the listed hazardous substances shall be conducted in accordance with the approved timings and transport routes listed under this Transport Approval.
- 2 All vehicles shall be equipped with relevant emergency response equipment to mitigate any incidents involving hazardous substances. Relevant documentation such as valid copies of Transport Approval, Transportation Emergency Response Plan and safety data sheets shall be brought along during transportation of these hazardous substances.
- 3 All vehicles' signal lights, gears, brakes, tyres, suspension, ignition and steering systems must be checked to ensure they are in good condition prior to transportation to minimize any risks arising from breakdown or dangers while on the roads. All cranes, forklifts, hauling, loading and unloading equipment used are to be maintained in good working condition and shall be capable of moving the maximum weight of containers and its contents safely.
- 4 The licence holder shall ensure that the personnel are aware of the risk posed by the hazardous substances for transportation. They are required to be familiar on the usage of spill/leak control equipment and the emergency response procedures in the event of an incident.
- 5 The Licence holder shall notify NEA immediately upon occurrence of any incident involving the loss, release and/or fire of hazardous substances during transportation.
- 6 Vehicles and packagings containing hazardous substances shall be labelled according to the Singapore Standard (Specification for hazard communication for hazardous chemicals and dangerous goods), SS 586-1:2021 and SS 586-2:2022.
- 7 The licence holder shall ensure that all hazardous substances are transported in enclosed 20 footer containers or in goods vehicles which have enclosed cage or goods vehicles which have side-boards and tail-boards of height at least equal to the height of the hazardous substances stacked in the vehicles. The hazardous substances shall also be securely tied or attached to the vehicle to prevent movement during transportation.

- 8 The licence holder shall ensure that local clients have valid Hazardous Substances (HS) licence or permit to use, deal and/or store HS. The quantities of hazardous substances to be transported shall not exceed the maximum storage quantities approved for the relevant site premises.
- 9 Prior to the transportation of hazardous substances, thorough checks shall be carried out to ensure that there are no leaks, physical or structural defects. Any packagings that show such defects, shall be removed from service immediately.
- 10 Only trained drivers with valid "Hazardous Materials Transport Driver Permit" (HTDP) shall be allowed to drive vehicles carrying controlled hazardous substances.
- 11 Submission of inspection certificates from an approved 3rd party inspection body is required for bulk packagings (equal or more than 450 litres in capacity). Relevant details such as drawing details for tankers/tank containers shall be submitted.
- 12 Packagings that are used for transportation of hazardous substances must be designed, constructed and transported in accordance to internationally acceptable standards such as the UN Recommendations on transport of dangerous goods (UNRTDG), International Maritime Dangerous Goods (IMDG) Code, etc.
- 13 Intermediate Bulk Containers (IBCs) shall be retested every 2.5/5 years intervals under internationally acceptable standards. The licence holder shall ensure that all safety precautions including thorough checks for leakage, deterioration, physical/structural damage, shall be done prior to the transportation of such IBCs.
- 14 Local deliveries of Hydrochloric Acid (35%) in Tank Containers to SG Galvanizing (Singapore) Pte Ltd and Progress Galvanizing Pte Ltd shall not exceed 15MT and 20MT, respectively. Tank Containers of Hydrochloric Acid are not permitted to be stored on site. Supply of Hydrochloric Acid to other clients will require prior approval from Chemical Control and Management Department (CCMD) of NEA.
- 15 This approval is for the supply of 20MT of Sodium Hydroxide (50%) in 1000kg IBCs to ST Microelectronics Pte Ltd at 8 Ang Mo Kio Avenue 12 Singapore 569709. Supply of Sodium Hydroxide to other clients will be subject to prior approval from CCMD (NEA).

This Approval is issued subject to the full compliance with provision of the Environmental Protection And Management (Hazardous Substances) Regulations and all conditions listed above.

This Transport Approval takes effect from 26 Mar 2024 and expires on 25 Mar 2025.

29 Oct 2024

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Date



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Nikki LEE  
for DIRECTOR-GENERAL  
ENVIRONMENTAL PROTECTION