

TCS-PARA

- **TCS-PARA** is an effective product for removing all kinds of paraffin wax, and is specially developed for vessel transport.
- This product is also a powerful emulsion solvent for substances remaining in parts of the tank inside that are hard to clean, as well as providing very good cleaning for outside surfaces for crude oil, petroleum chemical byproducts, grease, wax, asphalt, tar, coal, chlorobenzene, palm oil, macro-molecule fatty acids, carbonized hydrogen compounds, etc., and is an eco-friendly product with superior biodegradability.

1. Features and merits

- A. Nontoxic and non-corrosive
- B. Biodegradable, low irritation, soluble in water and eco-friendly
- C. Developed for industrial transport vessels
- D. Reusable and workable at room temperature
- E. Stable in light and soft water, seawater
- F. Does not require specialty equipment
- G. Does not influence all kinds of metals, rubber, and plastic compounds, and almost all paint material
- H. Strong penetration and fast emulsifying as a highly concentrated tank cleaner
- I. Predominant washing and strong deodorization effects
- J. Multipurpose application range
- K. Economical and low cost
- L. Easy to rinse and does not remain after cleaning
- M. Usable recycling method, washing machine method, spraying, or for cleaning some parts
- N. Extends to cargo tank

2. Physical chemical properties

Appearance (original liquid)	White liquid
Specific Gravity (water = 1)	0.85-0.87
pH (original liquid)	6.5-7.0
Solubility (menstruum = water)	Completely soluble in fresh water or seawater
Influence to non-ferrous metals discoloration and corrosion test	No
Influence to rubber & plastic	No
Ignition point (°C)	90°C more

3. Usage scoup

- Dominant effect for crude oil, petroleum chemical byproducts, grease, wax, asphalt, tar, coal, chlorobenzene, palm oil, macro-molecule fatty acids, carbonized hydrogen compounds, etc. and removes oil as a tank cleaner

- **. Usage tips and dilution ratio**

- A. Direct spray method: Use a high-pressure tank washing machine
- B. Dilution ratio: Generally 1-10%, 10-100 L mixing per 1TON for washing water

5. Usage with high-pressure tank washing machine

- A. Initiate cleaning: Recommend washing inside tank with seawater or fresh water at 50-60 °C before using TCS-PARA
- B. TCS-PARA usage tips
 - 1) Put 1-10% original liquid (washing water 1TON: original liquid 10-100 L) into mixture tank
 - 2) And washing water capacity accounts for about 5-10% of the chemical tank so as to increase the occurrence of the water current
 - 3) The dilution ratio varies according to the extent of contamination, and it is good to keep the washing water temperature at 50-60 °C to get the best effect, and one pail of original liquid can wash one or two tanks when comparing the extent of contamination
- C. Final cleaning: After cleaning with chemical, wash with seawater or fresh water before drying

6. Recycling method

- A. Prepare 1-10% TCS-PARA solution in a tank near a pump room
- B. Do recycling for one to two hours at 50-60 °C using a tank high-pressure washing machine
- C. Put in sufficient recycling washing water for continuous recycling

7. Hand spray method for inside tank

- A. Spray original liquid on walls and leave at least 20-30 minutes after spraying
- B. Wash with tank washing machine or high-pressure spray machine
- C. Keep washing water temperature at 60-70 °C to get the best effect
- D. Store (slop) washing water in tank to continuously strip during

8. Washing method for lubricating oil heat exchanger oil part

- ⊙ The best washing method is to heat up a 50% TCS-PARA water solution and do recycling method
- A. Stop the oil supply and then separate the entrance valve and outlet valve of the heat exchanger, and let remaining oil be discharged

B. Connect the outlet part to a lower connection of the heat exchanger, and the inlet part of the pump is connect to the ground outlet of a 200 L drum, and the upper connector of the heat exchanger is connect to the upper part of the drum, then confirm whether or not circulations and connection parts are normal, and install the underwater heater in drums

C. Put TCS-PARA in a drum, and wash with water heated up to 60-70°C and the recycling method. If heating is impossible, use long-term working hours

D. The cycling time should be maintained for at least 10-12 hours, and if washing is finished, discharge the washing detergent from the separate bottom of the heat exchanger

E. After connecting the upper part of the heat exchanger to high pressure hose, supply fresh water and rinse continuously until clean water comes out from the bottom of the heat exchanger

G. When rinsing is completely finished, separate all equipment and completely discharge and dry the heat exchanger

9. Immersion washing method

- Use original liquid that was severely polluted, and wash with dilution liquid after dipping for at least 20-30 minutes in a 10-20% dilution in the case of slight pollution, including filter cleaning

10. Packaging unit

A. Drum packing: actual capacity 210.00 L plastic and steel drum packing

B. Pail packing: actual capacity 25.00 L plastic and steel pail packing

11. Care in storage and usage

A. Do not allow contact with body or clothes because of solvent type

B. Work in a well-ventilated place because gas occurs

C. Do not look into the container during ventilation

D. Wear gloves, etc. for safety protection equipment

E. Use only for the stated purpose

F. Close cap after use

G. Do not use near fire equipment

H. Avoid sunlight and store without freezing

I. Do not store on more than three floors

J. Refer to technical data and MSDS about other information details