Material Safety Data Sheet

Corrosion Inhibitor 8050 (RXSOL-34-8204-210)

1. Product and Company Identifaction

Product Name	Corrosion Inhibitor CI 8050
Part Number	RXSOL-81-8204-210

Company Details:
RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Hazira, Mumbai, Chennai, Vizag, Kolkata, UAE, OMAN , KENYA CANADA

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2. Composition / informationon ingredients

Hazardous Component	CAS No.	EC No.	Percent	Classification
Gas oil	649-224-00-6	269-822-7	80 - 90	Flam. Liq. 3;H226
Butyl diglycol ether	603-096-00-8	203-961-6	3 - 5	Eye Irrit. 2;H319
Fatty acids, vegetable-oil, reaction - products with diethylenetriamine	68153-72-0	268-894-7	3 - 5	Skin Irrit.2;H315, Eye Irrit. 2;H319
Alkyl dimethyl benzyl ammonium Chloride	68424-85-1	270-325-2	1 - 3	Acute Tox. 4;H302,
Dodecenylsuccinic acid	29658-97-7	249-757-0	1 - 3	Eye Dam. 1;H318, Aquatic Chronic 3;H412
Solvent naphtha (petroleum),heavy aromatic	64742-94-5	265-198-5	1 - 3	Asp. Tox. 1;H304
Naphthalene	91-20-3	202-049-5	0,25 - 1	Acute Tox. 4;H302

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H318 Causes serious eye damage. H332 Harmful if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs (bone marrow, liver, thymus) through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements - prevention	P273 Avoid release to the environment.
Precautionary statements - response	P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty of 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. P310 Immediately call a POISON CENTRE/doctor.
Storage Not available.	Not available.
Disposal	Not available.
Supplemental label information	None

4. First Aid Measures

Inhalation	If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Only trained personnel should administer oxygen. Get medical attention.
Ingestion	Rinse mouth with water several times. DO NOT induce vomiting. If vomiting occurs naturally, keep head lower than hips to prevent aspiration. Obtain medical assistance immediately.
Eyes	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.
Skin	In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and launder before reuse. Get medical attention if irritation persists.

5. Fire-fighting Measures

Suitable Extinguishing media	Water Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Oxides of carbon and nitrogen evolved in fire.
Advice for firefighters	Self contained breathing apparatus. (CEN : EN 137) Protective clothing (CEN : EN 469) Protective gloves (CEN : EN 659) Helmet (CEN : EN 443)
Special fire fighting procedures	Use standard firefighting procedures and consider the hazards of other involved materials. Prevent spillage and fire-fighting water from entering in public sewers or the immediate environment.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedur	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Environmental precautions	Do not let product enter drains.
Methods and materials for containment and cleaning up	Absorb onto inert material and dispose of according to Hazardous Waste Regulations. After cleaning, flush away traces with water.

7. Handling and Storage

Precautions for safe handling	Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with skin and eyes. Arrange for eye wash possibility.
Storage	Keep away from heat and sources of ignition. Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.
Hygiene measures	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work
Specific End Use	Only for professional and industrial users
Shelf Life	24 Month

8. Exposure controls and personal protection

Control parameters	OELs. Maximum Allowable Limits for Air Pollutants in Working Areas [Law to Protect the Air from Pollution, Resolution of the Cabinet of Ministers No. 12 of 2006]

Components	Type	Value
Naphthalene (CAS 91-20-3)	STEL	79 mg/m3 15 ppm
	TWA	52 mg/m3 10 ppm
Solvent naphtha (petroleum),heavy aromatic (CAS 64742-94-5)	TWA 400	mg/m3

US. ACGIH Threshold

Components	Limit	Values
Butyl diglycol ether (CAS 112-34-5)	TWA	10 ppm
Gas oil (CAS 68334-30-5)	TWA	100 mg/m3
Naphthalene (CAS 91-20-3)	TWA	10 ppm
Solvent naphtha (petroleum),heavy aromatic (CAS 64742-94-5)	TWA	200 mg/m3

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
Butyl diglycol ether (CAS 112-34-5)	STEL	101,2 mg/m3 15 ppm
	TWA	67,5 mg/m3
Naphthalene (CAS 91-20-3)	TWA	50 mg/m3 10 ppm

Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Not available.

Occupational exposure limits

Components Notes	Value	Assessment factor	Notes
Butyl diglycol ether (CAS 112-34-5)			
Long-term, Local, Inhalation Long-term, Systemic, Dermal Long-term, Systemic, Inhalation Short-term, Local, Inhalation	67,5 mg/m3 83 mg/kg bw/day 67,5 mg/m3 1 01,2 mg/m3	24	Repeated dose toxicity
Gas oil (CAS 68334-30-5)			
Long-term, Systemic, Dermal Long-term, Systemic, Inhalation Short-term, Systemic, Dermal Short-term, Systemic, Inhalation	2,9 mg/kg/day 68 mg/m3 11, 11 mg/kg 0, 103 µg/m3	5 5	Acute toxicity
Solvent naphtha (petroleum),heavy aromatic (CAS 64742-94-5)			
Long-term, Systemic, Dermal Long-term, Systemic, Inhalation	384 mg/kg 192 mg/m3	1 1	
Predicted no effect concentrations (PNECs)			
Butyl diglycol ether (CAS 112-34-5)			
Fresh water Intermittent releases Marine water Secondary poisoning Sediment (freshwater) Sediment (marine water) Soil STP	1,1 mg/l 3,9 mg/l 0,11 mg/l 56 mg/kg 4,4 mg/kg 0,44 mg/kg 0,32 mg/kg 200 mg/l	1000 100 10000 90	Oral
Gas oil (CAS 68334-30-5) Freshwater	21 µg/l	1000	

Exposure guidelines

Belgium OELs	Skin designation
Gas oil (CAS 68334-30-5)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3) through the skin.	Can be absorbed through the skin.
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	Can be absorbed through the skin.

Appropriate engineering controls	Adequate ventilation to maintain air contaminants below exposure limits.

Personal protective equipment	Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards uch as NIOSH (US) or EN 166(EU). Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of ontaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Body Protection impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure Do not let product enter drains.
Thermal hazards	Not available.
Environmental exposure controls	Prevent from entering in public sewers or the immediate environment. Do not empty into drains, dispose of this material and its container to hazardous or special waste collection point.

9. Physical and chemical properties

General Information

Form	Fluid
Colour	Yellow
Odour	Hydrocarbon
Odor Threshold	No Data Available
pH (5% Emulsion)	6-8.5
Melting/Freezing Point	-5 °C
Boiling point/Boiling range	160 °C
Flash point	61 °C P-M(CC)
Evaporation rate	1 (Ether = 1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	No data available
Vapour Density	05,15 - (Air = 1.0)
Vapour pressure	5 mm Hg
Vapour pressure temp.	21 °C
Vapour density	> 1 (Air = 1)
Relative density	0,84
Relative density temperature	21 °C
Solubility (water)	0,1 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Viscosity temperature	21 °C

Explosive properties	Not available.
Oxidising properties	Not available
Pour point	-15 °C
Shelf life	720 days
VOC	90 % (Estimated)

10. Stability and reactivity

Reactivity	No additional information available
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Not applicable.
Conditions to avoid	Strong heating.
Incompatible materials	Strong oxidising substances
Hazardous decomposition products	Nitrogen oxides (NOx). Carbon oxides.

11. Toxicological information

Corrosion Inhibitor CI 8050	Acute Dermal LD50 Rabbit: > 5000 mg/kg (Calculated according to GHS additivity formula) Acute Inhalation LC50 Rat: 4,3 mg/l 4 hours (Calculated according to GHS additivity formula) Acute Oral LD50 Rat: > 5000 mg/kg (Calculated according to GHS additivity formula)	
Toxicity	Butyl diglycol ether (112-34-5)	Acute Dermal LD50 Rabbit: 2764 mg/kg Acute Oral LD50 Rat: 6560 mg/kg
	Solvent naphtha (petroleum),heavy aromatic (64742-94-5)	Acute Dermal LD50 Rabbit: > 3160 mg/kg Acute Inhalation LC50 Rat: > 5,2 mg/l 4 hour Acute Oral LD50 Rat: 7050 mg/kg
	Gas oil (68334-30-5)	Acute Dermal LD50 Rabbit: > 4300 mg/kg Acute Inhalation LC50 Rat: 3,6 mg/l 4 hour Acute Oral LD50 Rat: > 5000 mg/kg
	Alkyl dimethyl benzyl ammonium chloride (68424-85-1)	Acute Dermal LD50 Rabbit: 3340 mg/kg Acute Oral LD50 Rat: 344 mg/kg
	Naphthalene (91-20-3)	Acute Dermal LD50 Rabbit: > 16000 mg/kg Acute Oral LD50 Rat: > 2000 mg/kg

Acute Toxicity	Harmful if inhaled.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin ensitisation	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	May cause damage to organs (bone marrow, liver, thymus) through prolonged or repeated exposure.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Carcinogenicity	Suspected of causing cancer.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met
Ingestion	May be fatal if swallowed and enters airways.May cause irritation of the gastrointestinal tract.
Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye damage.
Symptoms	Not available.
Aspiration hazard	May be fatal if swallowed and enters airways.
Mixture versus substance information	None known.

Other information	Not available.

12. Ecological information

Toxicity to Fish	Alkyl dimethyl benzyl ammonium chloride (CAS 68424-85-1) EC50 Active Sludge 10 mg/l Daphnia magna 0,016 mg/l, 48 hour Aquatic Fish LC50 Rainbow trout 0,93 mg/l, 96 hour
Bioaccumulative potential	Not available.
Partition coefficient n -octanol/ water(log Kow)	Butyl diglycol ether 0,56 Naphthalene 3,3
Bioconcentration factor (BCF)	Not available
Persistence and degradability	Not available
Other adverse effects	Harmful to aquatic life.
Bioaccumulative potential	Not available.
Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
Other adverse effects	Not available.

13. Disposal considerations

Waste treatment methods	According to Hazardous Waste Regulations. EWC (European Waste Code) recommendation : 15 01 10 15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified. 15 01 Packaging (including separately collected municipal packaging waste). 15 01 10 Packaging containing residues of or contaminated by dangerous substances. Depending on the origin and state of the waste, other EWC numbers may be applicable too.
Disposal methods/information	According to Hazardous Waste Regulations. EWC (European Waste Code) recommendation : 16 03 05 16 Wastes not otherwise specified in the list. 16 03 Off-specification batches and unused products. 16 03 05 Organic wastes containing dangerous substances. Depending on the origin and state of the waste, other EWC numbers may be applicable too

14. Transport information

ADR

UN Number	UN3082
UN proper shipping	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Gas oil, Mixture)
Hazard Class	9
Subsidiary risk -	--
Tunnel restriction code (-)	
Packing Group:	III
Environmental hazards	Yes
Special precautions for user	Not available.

RID/ADN

UN Number	UN3082
UN proper shipping	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Gas oil, Mixture)
Hazard Class	9
Subsidiary risk -	--
Tunnel restriction code (-)	
Packing Group:	III
Environmental hazards	Yes

Special precautions for user	Not available.

AIR TRANSPORT (ICAO/IATA):

UN Number	UN3082
UN proper shipping	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Gas oil, Mixture)
Hazard Class	9
Subsidiary risk -	--
Tunnel restriction code (-)	
Packing Group:	III
Environmental hazards	Yes
Special precautions for user	Not available.

MARINE TRANSPORT (IMDG/IMO):

UN Number	UN3082
UN proper shipping	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Gas oil, Mixture)
Hazard Class	9
Subsidiary risk -	--
Tunnel restriction code (-)	
Packing Group:	III
Environmental hazards	Yes
Special precautions for user	Not available.
EmS	F-A, S-F
Transport in bulk according to Annex II of MARPOL and the IBC Code	This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	EU regulations Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended Not listed. Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended Not listed. Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended Not listed. Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended Not listed. Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended Not listed. Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended Not listed. Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended Naphthalene (CAS 91-20-3) Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed. Authorisations Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended Not listed.
Restrictions on use	Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended Butyl diglycol ether (CAS 112-34-5) 55 Solvent naphtha (petroleum),heavy aromatic (CAS 64742-94-5)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.	Solvent naphtha (petroleum),heavy aromatic (CAS 64742-94-5) Naphthalene (CAS 91-20-3)
Inventory status	Country(s) or region Inventory name On inventory (yes/no)* Europe European Inventory of Existing Commercial Chemical Substances (EINECS) Yes Europe European List of Notified Chemical Substances (ELINCS) No *A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the in e inventory administered by the governing country(s).
List of abbreviations	EC-No: European Commission Number COD: Chemical Oxygen Demand IATA: International Air Transport Association CAS: Chemical Abstract Service. CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures. CEN: European Committee for Standardization (Comité Européen de Normalisation). TWA: Time Weighted Average. STEL: Short-term Exposure Limit. LD50: Lethal Dose 50%. LC50: Lethal Concentration 50%. EC50: Effective Concentration 50%. NOEL: No observed effect level. BOD: Biochemical oxygen demand. TOC: Total Organic Carbon. ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des merchandises dangereuses par route). ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures). IMDG Code: International Maritime Dangerous Goods Code. RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if RX Marine International has been advised of the possibility of such damages.