

SAFETY DATA SHEET

Rapid Curing Cutback RC-250



1. Identification of Substance or Mixture and of the Supplier

Product Name : Rapid Curing Cutback
Other Names : RC-250
Recommended Use : Road paving

Suppliers Details : **Attock Refinery Limited**
P.O. Refinery, Morgah, Rawalpindi, Pakistan
Telephone/Fax Number
Tel: +92-51-5487041
Fax: +91-51-5487041

Emergency Phone Number : +92-51-5487041

2. Hazard Identification

GHS Classification

Health hazards : Skin corrosion/irritation Category 2
Germ cell mutagenicity Category 1B
Carcinogenicity Category 1B
Reproductive toxicity Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Aspiration hazard Category 1

Environmental hazards : Hazardous to the aquatic environment, Category 2
long-term hazard

GHS Label Elements & Precautionary Statements



Signal Word
Danger

Hazard statement

H226 - Flammable liquid and vapor.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H340 - May cause genetic defects.
H350 - May cause cancer.

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H361 - Suspected of damaging fertility or the unborn child.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statement : **P201** - Obtain special instructions before use.
P202- Do not handle until all safety precautions have been read and understood
P210 - Keep away from extremely high or low temperatures, ignition sources, and incompatible materials. No smoking
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating, and lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P310 - If swallowed: Immediately call a poison center or doctor.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see section 4 on this SDS)
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.
P403+P233+P235 - Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. May defat skin and cause contact dermatitis. Asphalt contains a small amount of hydrogen sulfide. Hydrogen sulfide is a fatal and highly flammable gas. Heating of this product and storage under elevated temperatures or over long periods of time may release higher amounts of

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hydrogen sulfide. Hydrogen sulfide is also an asphyxiant. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas. Product may contain polynuclear aromatic hydrocarbons (PNAs). Evidence from animal studies indicates that prolonged exposure to various PNAs can cause cancer of the lungs, skin and other organs. If product is hot, there is risk of thermal burns.

3. Composition / Information on Ingredients

Chemical Identity : It is manufactured from Vacuum distillation of crude oil. A mixture of asphaltic material and petroleum distillate

Composition Information

Name	CAS Number	Percent (%)
Asphalt	8052-42-4	70-80
Naphtha (petroleum), hydro-treated heavy	64742-48-9	20-30

4. First-Aid Measures

Inhalation : If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

Ingestion : Rinse mouth. DO NOT induce vomiting. Get medical attention immediately. If ingestion of a large amount does occur, call a poison control center immediately.

Skin : Exposure to this material can be controlled in many ways. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. This general information can be used to help develop specific control measures. Ensure that control systems are properly designed and maintained. Comply with occupational, environmental, fire, and other applicable regulations in case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleaner. Wash clothing before reuse. Clean shoes

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thoroughly before reuse.
Get medical attention immediately.

Eye Contact

: If a contact lens is present, DO NOT delay flushing or attempt to remove the lens. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Get medical attention immediately.

General Information

: If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

5. Fire Fighting Measures

Suitable Extinguishing Media

: Foam, Dry powder, Carbon dioxide (CO2)

Unsuitable Extinguishing Media

: Do not use water when molten material is involved, contact of hot product with water will result in a violent expansion as the water turns to steam causing explosion with massive force.

Hazards from Combustion Products

: Non combustible material. However, under fire conditions this product may emit toxic and/or irritating fumes and gases (smoke). Boil-over of tanks and violent eruptions may occur in the presence of water.

Specific Hazards during Fire Fighting

: Fire may produce irritating, corrosive and/or toxic gases

Special protective equipment and precautions for firefighters

: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and facemask.

Fire-fighting equipment/instructions

: In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters

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(1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue.

Specific methods

: In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk. Use water spray to cool unopened containers.

Other Information

: Do not allow run-off from fire fighting to enter drains or water courses.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

: Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them.

Environmental Precautions

: Prevent further leakage or spillage if safe to do so. Do not contaminate water. No special environmental precautions required. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

Methods and Materials for Containment and Cleaning up

: Extinguish all flames in the surrounding area.
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean Surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.

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7. Handling & Storage

Safe Handling

: Only use where there is adequate ventilation. Avoid generating vapors or mists. Prevent uncontrolled release of product. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge.

Post "No Smoking" signs. Avoid heating that will increase the amount of vapors. Electrically bond and ground equipment. Ground clips must contact bare metal. Increase conductivity by reducing flow rate in transfer operations and/or handle at lower temperature. Prevent accidental contact with incompatible chemicals. Wear personal protective equipment to avoid direct contact with this chemical. Avoid repeated or prolonged skin contact with product or with contaminated equipment/surfaces. Avoid shock, friction or impact.

Do not skid, drag or drop containers. During storage, transit and cooling of asphalt, solvent vapor and hydrogen sulphide may accumulate in enclosed spaces such as tank cars. Open tank car hatches with caution. Maintain same precautions when gauging and sampling.

Do NOT smoke in work areas. Do NOT eat, drink or store food in work areas.

Remove contaminated clothing and protective equipment before entering eating areas or leaving work area. Consider using a double locker-shower facility.

Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

Keep contaminated clothing in closed containers. Properly dispose of any contaminated items, including shoes, which cannot be decontaminated.

Safe Storage Conditions

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Engineering controls are usually required in the storage area to protect against the product's hazard(s).

Review Section 8 (Exposure Controls/Personal Protection) for information. See advice on temperature in Conditions to avoid in Section 10 (Stability and Reactivity) to determine suitable storage temperature. Electrically bond and ground containers. Ground clips must contact bare

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metal. Avoid bulk storage indoors. Do not handle swollen drums. Get expert advice. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet. Comply with all applicable health and safety regulations, fire and building codes.

Recommended Material : For containers or container linings, use stainless steel.

Unsuitable Materials : For containers or container linings avoid PVC, polyethylene or high density polyethylene.

8. Exposure Control / Personnel Protection

Component	CAS No	Value Type (Form of Exposure)	Control Parameters / Permissible Concentration	Basis
Asphalt	8052-42-4	TWA	0.5 mg/m3 (I) A4 BEI	ACGIH
Asphalt	8052-42-4	Ceiling	5.0 mg/m3 (fume)	NIOSH
Naphtha	64742-48-9	-	NA	

Occupational Exposure Limit Values TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Biological Limit Values : No biological limit available

Appropriate Engineering Controls : Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory Protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Eye Protection : Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances.
Eye protection devices should conform to relevant regulations

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9. Personal Protection

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Body Protection

General hygiene considerations

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: Wear gloves of impervious material. Heat resistant gloves recommended. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken.

: Suitable protective work wear, e.g. Cotton overall/ dangries.

: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

& Chemical Properties

Physical State	: Liquid
Appearance	: Brown to black in color
Color	: Brown – black
Odor	: Aromatic Mild Petroleum Odor
Flash	: >-9 °C
Relative density	: 0.90- 1.00
Viscosity	: 250 -500 cSt

10. Stability & Reactivity

Chemical Stability	: Reacts with strong oxidizers. Increased risk of fire or explosion
Conditions to Avoid	: Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.
Incompatible Products	: Strong acids, strong bases, strong oxidizers. Nitrates
Hazardous Decomposition Products	: Carbon oxides (CO, CO ₂). Hydrocarbons. May release flammable gases. Sulfur oxides. Nitrogen oxides. Hydrogen sulfide

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11. Toxicological Information

Toxicology Information	: Acute Toxicity Not classified Acute Toxicity – Oral LD50 :(Rat) : >5000 mg/kg Acute Toxicity Inhalation LC50 (Rat) : >94.4 mg/kg Acute Toxicity – Dermal LD50 :(Rat) : >5000 mg/kg
Ingestion	: Ingestion is unlikely. However, Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
Inhalation	: Inhalation of product vapors may cause irritation of the nose, throat and respiratory system.
Skin	: Irritating to skin. Signs/symptoms may include localized redness, swelling, and itching. Hot liquid product may cause serious thermal burns on direct contact. Asphalt fumes can increase susceptibility to sunburn. Contact may cause irritation to the skin and mucous membranes upon prolonged and / or repeated skin contact. Prolonged or repeated contact to petroleum oil with skin may cause de-fatting of skin leading to redness, itching, inflammation, cracking, dermatitis (rash).
Eye	: May be an eye irritant
Respiratory Sensitization	: Not expected to be a respiratory sensitizer
Skin Sensitization	: Not expected to be a skin sensitizer
Germ cell Mutagenicity	: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic
Carcinogenicity	: May cause cancer, Occupational exposure to straight-run asphalts and their emissions during road paving: 2B Possibly carcinogenic to humans.
Reproductive Toxicity	: Suspected of damaging fertility or the unborn child. Animal studies of benzene have shown testicular effects, alterations in reproductive cycles, chromosomal aberrations and embryo toxicity. May damage fertility or the unborn child. Can cause adverse reproductive effects – such as birth defects, miscarriages, or infertility. Avoid exposure to women during early pregnancy. Avoid contact during pregnancy/while nursing.



Aspiration Respiratory : May be fatal if swallowed and enters airways.
Organs Hazard

Toxicity : This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material. Information given is based on knowledge of the components and the ecotoxicology of similar products.

Acute Toxicity : Poorly soluble mixture. May cause physical fouling of aquatic organisms.
 Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l(to aquatic organisms)(LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).

Mobility : Adsorbs to soil and has low mobility. In water will either float or sink, showing little tendency to disperse, the product will adsorb to the sediment.

Persistence/degradability : Expected to be not inherently biodegradable

Bioaccumulative Potential : Has the potential to bioaccumulate. In practice, the very low water solubilities and high molecular weights of these substances are such that their bioavailability to aquatic organisms is limited and therefore bioaccumulation is unlikely.

Other Adverse Effects : Not expected to have ozone depletion potential, photochemical ozonecreation potential or global warming potential.

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. Recycle and reuse product, if possible. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user. This product and its container must be disposed of as hazardous waste.

Do NOT dump into any sewers, on the ground or into any body of water. The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container. Do not reuse empty containers. Dispose of or recycle empty containers through an approved

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waste management facility. Store product for disposal as described under Storage in Section 7 of this safety data sheet.

14. Transport Information

Hazard Class

Not Applicable

U.N. Number

1999

Packaging Group

III

Proper Shipping Name

Tars, liquid

15. Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations.

16. Other Information including Information on Preparation and revision of the SDS

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process.