11-2000

MaterialSafetyDataSheet

MaterialName:CupricCarbonate ID:C1178

Section1ChemicalProductandCompanyIdentification

ChemicalName: CupricCarbonate,LightorDensePowder
ProductUse: ForCommercialUse
Synonyms: BasicCopperCarbonate,Copper(II)Carbonate,Copper(II)CarbonateHydroxide
ManufacturerInformation

ChemOneCorporation(Importerofrecord) Phone#:(713)8969966
8017PinemontDrive,Suite100 Fax#:(713)8967540
Houston,Texas770406519 Emergency#:18004249300

GeneralComments

NOTE:Emergencytelephonenumbersaretobeusedonlyintheeventofchemicalemergenciesinvolvingaspill,leak,fire, exposure,oraccidentinvolvingchemicals.Allnonemergencyquestionsshouldbedirectedtocustomerservice.

Section2Composition/InformationonIngredients

CAS#	Component	Percent
12069691	Copper(II)carbonatehydroxide	70

ComponentRelatedRegulatoryInformation

Thisproductmayberegulated,haveexposurelimitsorotherinformationidentifiedasthefollowing:Copper(7440508).

ComponentInformation/InformationonNonHazardousComponents

Thisproductisconsideredhazardousunder29CFR1910.1200(HazardCommunication).

Section3HazardsIdentification

EmergencyOverview

Productisagreensolidexistingasafinepowder.Usemethodssuitableforsurroundingfire.Avoidbreathingdusts.May causeirritationtothenose,throat,andupperrespiratorytract.Thisproductisirritatingtotheeyesandskin.Harmfulor fatal ifswallowed.Firefightersshouldwearfullprotectiveequipmentandclothingwhenfightingafireinvolvingthismaterial. Highconcentrationofairbornedustmayposeanexplosionhazard.

HazardStatements

WARNING!Irritatingtotheeyesandrespiratorysystem.Maybeharmfulifinhaledorswallowed.Avoidbreathingdustsand fumes.Avoidcontactwitheyes.Keepcontainerclosed.Usewithadequateventilation.Washthoroughlyafterhandling.

PotentialHealthEffects:Eyes

Thisproductisirritatingtotheeyes.Exposuremayresultinirritation,pain,swelling,tearing,orphotophobia.Copper salts mayproduceconjunctivitisorevenulcerationandcloudingofthecornea.

PotentialHealthEffects:Skin

Coppersaltsareirritatingtotheskin,andmayproduceitching,redness,andrash.Thisproductmaycauseskindiscoloratio n.

PotentialHealthEffects:Ingestion

Highlevelacuteingestionofcoppersaltsmayproducenausea,vomitingandepigastricburningpain,followedbyhemolysis, anemia,andliverandkidneydamagesecondarytohemolysis.Vomitusischaracteristicallygreenishblue.Mucosalerosion, ametallictasteinthemouth,andbloodydiarrheamayoccur.Hypotension,lethargy,andcomaarepotentialCNSeffectsthat mayresultfromingestionoflargequantitiesofthisproduct.

PotentialHealthEffects:Inhalation

Inhalationofdustandmistsofcoppersaltscanresultinirritationofnasalmucousmembranes,sometimesofthepharynxand, onoccasion,ulcerationwithperforationofthenasalseptum.Inhalationoffumesorfinedustmaycausemetalfumefever withresultingflulikesymptomsinvolvingfever,chills,sweats,muscleachesandpains,cough,andgeneralmalaise.

HMISRatings:Health: 2 **Fire:**1 **Reactivity:**1 **Pers.Prot.:** imperviousgloves,chemicalgoggles
HazardScale:0=Minimal1=Slight2=Moderate3=Serious4=Severe*=Chronichazard

Section4FirstAidMeasures

FirstAid:Eyes

Immediatelyflusheyeswithlargeamountsofroomtemperaturewater,occasionallyliftingthelowerandupperlids,forat least15minutes.Ifsymptomspersistafter15minutesofirrigation,seekmedicalattention.

FirstAid:Skin
Forskincontact,washimmediatelywithsoapandwater.Getmedicalattentionifirritationorpainpersists.
FirstAid:Ingestion
Ifthematerialisswallowed,getimmediatemedicalattentionoradvice.Donotinducevomitingunlessdirectedtodosoby medicalpersonnel.Nevergiveanythingbymouthtoavictimwhoisunconsciousorhavingconvulsions.Emesisisgenerally rapidandspontaneousinindividualswhohaveingestedcoppersalts.
FirstAid:Inhalation
Ifsymptomsareexperienced,removesourceofcontaminationormovevictimtofreshair.Ifnotbreathing,giveartificial respiration.Seekmedicalattentionifsymptomspersist.
FirstAid:NotestoPhysician
Providegeneralsupportivemeasuresandtreatsymptomatically.ConsultnearestPoisonControlCenterforallexposures exceptminorinstancesofinhalationorskincontact.

Section5FireFightingMeasures

FlashPoint: Notapplicable.
MethodUsed: Notapplicable.
UpperFlammableLimit(UFL): Notavailable.
LowerFlammableLimit(LFL): Notavailable.
AutoIgnition: Notavailable.
FlammabilityClassification: Notavailable.
RateofBurning: Notavailable.
GeneralFireHazards
Highconcentrationofairbornedustmayposeanexplosionhazard.Preventhumanexposuretofire,smoke,fumes,or productsofcombustion.
HazardousCombustionProducts
Whenheatedtodecomposition,thisproductemitsacridsmokeandfumes,includingcopperoxidefumes.
ExtinguishingMedia
Usemethodsforthesurroundingfire.Drychemical,foam,carbondioxide,orwatersprayarerecommended.
FireFightingEquipment/Instructions
Firefightersshouldwearfullprotectiveclothingincludingselfcontainedbreathingapparatus.

NFPARatings:Health: 2 **Fire:**1 **Reactivity:**1 **Other:**0
HazardScale:0=Minimal1=Slight2=Moderate3=Serious4=Severe

Section6AccidentalReleaseMeasures

ContainmentProcedures
Stoporreduceleakifsafetodoso.
CleanUpProcedures
Preventmaterialfromenteringsewersandwaterways.Wearprotectiveclothingandrespiratoryprotectionfromdust.Put materialinsuitable,covered,labelledcontainers.
EvacuationProcedures
Keepunnecessarypersonnelaway.Closeoffarea.
SpecialProcedures
Wearadequatepersonalprotectiveequipment.Avoidinhalationofdusts.Ventilatethearea.

Section7HandlingandStorage

HandlingProcedures
Highconcentrationofairbornedustmayposeanexplosionhazard.Avoidinhalationoffumesproducedbyheatingthis productanddustsgeneratedfromthisproduct.Avoidcontactwitheyesandprolongedskincontact.Useindesignatedareas withadequateventilation.Washthoroughlyafterhandling.Keepcontainersclosedanddry.
StorageProcedures
Storeinacool,dry,wellventilatedarea.Storeinasuitablelabeledcontainer.Donotstorenearfeed,food,orwithint he reachofchildren.

Section8ExposureControls/PersonalProtection

ExposureGuidelines

A:GeneralProductInformation

TheACGIH1997NoticeofIntendedChangeslists,asCu:fumeandrespirableparticulate:(0.05)mg/m3TWA;inhalable particulatedustsandmists(1)mg/m3TWA.

B:ComponentExposureLimits

Copper(II)carbonatehydroxide(12069691)

ACGIH: fume:(0.2)mg/m3TWA;dustsandmists,asCu:(1)mg/m3TWA(relatedtoCopper)
OSHA: fume,asCu:0.1mg/m3TWA(relatedtoCopper)
NIOSH: asCu:1mg/m3TWA(dustsandmists);0.1mg/m3TWA(fume)(relatedtoCopper)

EngineeringControls

Ventilationmustbesufficienttoeffectivelyremoveandpreventbuildupofdustorfumesthatmaybegeneratedduring handlingorthermalprocessing.Localexhaustissuggestedforuse,wherepossible,inenclosedorconfinedspaces.

PERSONALPROTECTIVEEQUIPMENT

PersonalProtectiveEquipment:Eyes/Face

Wearsafetyglasseswithsideshieldsorchemicalgoggles.

PersonalProtectiveEquipment:Skin

Useimperviousgloves.

PersonalProtectiveEquipment:Respiratory

Ifventilationisnotsufficienttoeffectivelyremoveandpreventbuildupofdustorfumesthatmaybegeneratedduring handlingorthermalprocessing,useNIOSHapprovedrespiratoryprotection.

PersonalProtectiveEquipment:General

Asafetyshowerandeyewashfountainshouldbereadilyavailablewherethisproductishandled.Usegoodhygienepractices whenhandlingthismaterial,includingchangingandlaunderingworkclothingafteruse.

Section9Physical&ChemicalProperties

Appearance:	Finegreenpowder.	**Odor:**	None.
PhysicalState:	Solid.	**pH:**	710(10%solution)
VaporPressure:	Notapplicable.	**VaporDensity:**	Notapplicable.
BoilingPoint:	Notapplicable.	**MeltingPoint:**	Notavailable.
Solubility(H2O):	Insoluble.	**SpecificGravity:**	Notavailable.
FreezingPoint:	Notapplicable.	**ParticleSize:**	Notavailable.
SofteningPoint:	Notavailable.	**EvaporationRate:**	Notapplicable.
Viscosity:	Notapplicable.	**BulkDensity:**	100135lbs/ft3
PercentVolatile:	Notavailable.	**MolecularWeight:**	221.11

PhysicalProperties:AdditionalInformation

Thedataprovidedinthissectionistobeusedforproductsafetyhandlingpurposes.PleaserefertoProductDataSheets, CertificatesofConformityorCertificatesofAnalysisforchemicalandphysicaldatafordeterminationsofqualityandfor formulationpurposes.

Section10ChemicalStability&ReactivityInformation

ChemicalStability

Stable.

ChemicalStability:ConditionstoAvoid

Ignitionsources,incompatiblematerials,alkalis,reducingagents,andstrongoxidants.

Incompatibility

Copperformspotentiallyexplosivereactionswithactyleniccompounds,ammoniumnitrate,3bromopropyne,ethylene oxide,sodiumazide,andleadazide.Acombinationoffinelydividedcopperwithfinelydividedbromates(alsochloratesor iodates)ofbarium,calcium,magnesium,potassium,sodium,orzincwillexplodewithheat,percussionandsometimeslight friction.Reducingagentsreactvigorouslywithcoppersalts.

HazardousDecomposition

Whenheatedtodecomposition,thisproductemitsacridsmokeandfumes,includingcopperoxidefumes.

HazardousPolymerization

Willnotoccur.

Section11ToxicologicalInformation

AcuteToxicity

A:GeneralProductInformation

Targetorgansincludetherespiratorysystem,skin,eyes,liver,andkidney.Productcauseseyeandskinirritation.Systemic effectscanoccurfromhighlevelacuteingestionofcoppersalts,whichcanbeabsorbedfromthestomachandproduce nausea,vomitingandepigastricburningpain,followedbyhemolysis,anemia,andliverandkidneydamagesecondaryto hemolysis.IfcoppersaltsfrominhalationinsufficientconcentrationreachtheGItract,theyactasirritantsproducing salivation,nausea,vomiting,gastricpain,hemorrhagicgastritis,anddiarrhea.Repeatedexposuretocopperfumeandfine dustisknowntocausemetalfumefever,aflulikeconditioninvolvingfever,chills,sweats,muscleachesandpains,cough, andgeneralmalaise.Symptomsbeginwithinafewhoursafterexposureandsubsidewithin24to48hours,leavingno permanenteffects.Metalfumefeverhasbeenreportedinworkersexposedtoanextremelyfinecopperdustat concentrationsof0.075to0.12mg/m3.Exposuremaydepressmentalstatus,resultinginlethargyandcoma.Nochronic lungdamagehasbeenattributedsolelytoc opper.Chronicexposuretolowlevelsofcopperhasbeenreportedtoinduce anemia,probablyfromhemolyticeffects.Allergiccontactdermatitishasbeenreported,butisextremelyrare.

B:ComponentAnalysisLD50/LC50

Copper(II)carbonatehydroxide(12069691)

OralLD50Rat:1350mg/kg

Carcinogenicity

A:GeneralProductInformation

Neithercoppernoritsinorganicsaltsareregardedashumancarcinogens.

B:ComponentCarcinogenicity

NoneofthisproductscomponentsarelistedbyACGIH,IARC,OSHA,NIOSH,orNTP.

Epidemiology

Noinformationavailable.

Neurotoxicity

Lethargyandcomahavebeenreportedinpatientswithseverecoppersulfateintoxication,andmightdevelopafteringestion ofothercoppersalts.

Mutagenicity

Copperderivativeswerenotmutagenicin theAmesSalmonellaassay,however,copperwasfoundtobemutagenicinother assays.

Teratogenicity

Copperwasnotteratogenicinhamsters.Theresultsofteratogenicitystudiesinratshavebeenconflicting.Coppermayhave beentoxictothespermandembryosofratswheninhaled,andtomicewhengivenorally.

OtherToxicologicalInformation

IndividualswithWilson'sDisease(ahereditarydiseaseassociatedwiththeinabilitytoremovecopperfromtheblood)maybe atgreaterriskwhenexposedtothisproduct.

Section12EcologicalInformation

Ecotoxicity

Productmaybetoxictofishandmarineorganisms.Donotcontaminatewaterbycleaningofequipmentordisposalof wastes.Coppercompoundsareconsideredatoxicpollutantunder theU.S.CleanWaterAct.Coppercarbonateisusedin insecticidesandfungicides.

EnvironmentalFate

Notbiodegradable.Waterinsoluble.

Section13DisposalConsiderations

USEPAWasteNumber&Descriptions

A:GeneralProductInformation

Asshipped,thisproductisnotconsideredahazardouswasteunder40CFR261(RCRA).

B:ComponentWasteNumbers

NoEPAWasteNumbersareapplicableforthisproduct.

DisposalInstructions

Reviewfederal,provincial,andlocalgovernmentrequirementspriortodisposal.Donotallowthismaterialtodrainto sewers/watersupplies.Disposalbysecurelandfillmaybeacceptable.

Section14TransportationInformation

USDOTInformation

ShippingName: Nonregulated.
HazardClass: Notapplicable.
UN/NA#: Notapplicable.
PackingGroup: Notapplicable.
AdditionalInfo.: NoadditionalDOTregulatoryinformationapplicable.

InternationalTransportationRegulations

I.M.O.:Notregulatedasdangerousgoods.NOTE:Thedatainthissection(Section14)ismeantasaguidetotheoverall classificationoftheproduct.However,transportationclassificationsmaybesubjecttochangewithchangesinpackagesize. ConsultshipperrequirementsunderI.M.O.,I.C.A.O.(I.A.T.A.)and49CFRtoassureregulatorycompliance.

Section15RegulatoryInformation

USFederalRegulations

A:GeneralProductInformation

"Coppercompounds"asacategoryislistedundertheCleanWaterActasaToxicPollutant.

B:ComponentAnalysis

ThismaterialcontainsoneormoreofthefollowingchemicalsrequiredtobeidentifiedunderSARASection302(40CFR 355AppendixA),SARASection313(40CFR372.65)and/orCERCLA(40CFR302.4).

Copper(II)carbonatehydroxide(12069691)

SARA313: formRreportingrequiredfor1.0%deminimusconcentration(relatedtoCopper)
CERCLA: finalRQ=5000pounds(2270kg)(noreportingofreleasesofthishazardoussubstanceisrequiredif thediameterofthepiecesofthesolidmetalreleasedisequaltoorexceeds0.004inches)(relatedto Copper)

StateRegulations

A:GeneralProductInformation

Noadditionalinformation.

B:ComponentAnalysisState

Thefollowingcomponentsappearononeormoreofthefollowingstatehazardoussubstancelists :

Component	CAS#	CA	FL	MA	MN	NJ	PA
Copper(II)carbonatehydroxide	12069691	Yes	Yes	Yes	Yes	Yes	Yes

OtherRegulations

A:GeneralProductInformation

Notapplicable.

B:ComponentAnalysisInventory

Component	CAS#	TSCA	DSL	EINECS
Copper(II)carbonatehydroxide	12069691	Yes	Yes	Yes

C:ComponentAnalysisWHMISIDL

ThefollowingcomponentsareidentifiedundertheCanadianHazardousProductsActIngredientDisclosureList:

Component	CAS#	MinimumConcentration
Copper(II)carbonatehydroxide	12069691	1%item428(985)

Section16OtherInformation

OtherInformation

ChemOneCorp.("ChemOne")shallnotberesponsiblefortheuseofanyinformation,product,method,orapparatusherein presented("Information"),andyoumustmakeyourowndeterminationastoitssuitabilityandcompletenessforyourownuse, fortheprotectionoftheenvironment,andforhealthandsafetypurposes.Youassumetheentireriskofrelyingonthis Information.InnoeventshallChemOneberesponsiblefordamagesofanynaturewhatsoeverresultingfromtheuseofthis productorproducts,orrelianceuponthisInformation.ByprovidingthisInformation,ChemOneneithercannorintendsto controlthemethodormannerbywhichyouuse,handle,store,ortransportChemOneproducts.Ifanymaterialsare mentionedthatarenotChemOneproducts,appropriateindustrialhygieneandothersafetyprecautionsrecommendedbytheir manufacturersshouldbeobserved.ChemOnemakesnorepresentationsorwarranties,eitherexpressorimpliedof merchantability,fitnessforaparticularpurposeorofanyothernatureregardingthisinformation,andnothinghereinwaives anyofChemOne'sconditionsofsale.Thisinformationcouldincludetechnicalinaccuraciesortypographicalerrors.Chem Onemaymakeimprovementsand/orchangesintheproduct(s)and/ortheprogram(s)describedinthisinformationatany time.Ifyouhaveanyquestions,pleasecontactusatTel.7138969966orEmailusatSafety@chemone.com.Revision information:Revised01/23/98

Key/Legend

EPA=EnvironmentalProtectionAgency;TSCA=ToxicSubstanceControlAct;ACGIH=AmericanConferenceof GovernmentalIndustrialHygienists;IARC=InternationalAgencyforResearchonCancer;NIOSH=NationalInstitutefor OccupationalSafetyandHealth;NTP=NationalToxicologyProgram;OSHA=OccupationalSafetyandHealth AdministrationNA=NotavailableornotapplicableG=grams;kg=kilogramsM=molar;C=CelciusDOT=Dept.of Transportation

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